

NOV 16 1911

Containing a Christmas Gift Supplement

VOL. X. NO. 4

\$1.00 A YEAR

NOVEMBER, 1911

SELLING ELECTRICITY and ELECTRICAL MERCHANDISE

Published by THE RAE COMPANY, 17 Madison Ave., New York

Excess Baggage Doesn't Always Mean Excess Sales

The clothing drummer carries a suit case and five trunks; the bond salesman carries his grip and a pocket-book. Yet the bond salesman will make more money for his firm in an hour than the clothing man can make in a week. They both carry samples, but the difference lies in the lines they carry.

The "old fashioned" fixture dealer is like the clothing salesman; he has to pay excess expense for his store, simply because his bulky stock takes up a lot of room—it's the five trunk variety. He has to keep a complete stock on hand, and pays high rent for both a large store room and high class display space.

TTC TUNGSTOLIERS



can be displayed in a room 12 by 15 feet, while a reasonably complete reserve stock can be stored in a line of shelving 15 feet long, 10 feet high and 30 inches deep. This is because TTC Tungstoliers are made on the sectional principle, with interchangeable parts. An equipment of 86 TTC parts can be made into no less than 1,944 different fixture designs. In other words, you can show nearly 2000 fixtures in a room less than 15 feet square.

This is only one of the advantages of TTC Tungstoliers. The others are told in our illustrated book, "A New Way To Sell Fixtures." A postal will bring it to you—it is free.

THE TUNGSTOLIER COMPANY

MAIN OFFICE AND WORKS:

NEW YORK

CONNEAUT, OHIO

DALLAS

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CORINTHIAN STANDARD
Patent

Reliability is the result of ability, conscientiousness and integrity.

These three factors—in equal proportions and full strength—have made our reputation.

Reliability is the absolute product.

Whenever you consider anything, be sure there is, first of all, reliability.

Now you know.

**FLOUR CITY
ORNAMENTAL IRON
WORKS**

Minneapolis

Minnesota

In writing to advertisers, mention "Selling Electricity"



This Package Contains

A BUCKEYE packing slip means what it says. It tells the exact truth. When you read the words, "This package contains—", it's a moral certainty that the goods are there.

For Buckeye Service does not consist in making rush shipments of the wrong goods. It consists in careful, accurate, conscientious attention to the customers' needs. If we haven't the lamps you want, we say so—though that is seldom necessary because our stocks are so complete. If we can't ship the day you specify, we say so—though we'll make the shipment if it's humanly possible. In any event, we don't ship "near" selection no do we "stall" the order when we know we can't make good.

It used to be pretty hard for us to lose business by telling the truth, but we learned from the experience of others that it was worse to lose business by lying. That's why the Buckeye packing slip tells the exact truth.

There was a sign posted on the Buckeye shipping room wall:—"Deliver the goods—but deliver the *right* goods, always." And that means the right quality, right selection and rating, right size and type.

If you haven't been receiving lamps that are made and sold and shipped on this basis, then you better buy Buckeye.

THE BUCKEYE ELECTRIC CO. CLEVELAND

CHICAGO

PITTSBURGH

DALLAS

BOSTON

In writing to advertisers, mention "Selling Electricity"



Even Such Small Signs

Have

Individuality

When

Greenwood Builds Them

Many central station salesmen feel that they can't expect much originality, much individuality in an inexpensive sign. That is a mistake.

Of course, nobody can make \$100 do the work of \$500, but when the Greenwood artists design a sign they undertake to create an *advertising medium*, the right kind for the customer's business, and that's what they do.

This Sign is not a costly one, as you see, but it is different from anything else in the city. It is alive with action. It is exactly suited for the work at hand—to attract the interested attention of the laborer and his family. The word CREDIT holds his eye.

And this sign like every other Greenwood sign is built all of metal, and will last long.

You sell more small signs than big ones. Buy them from

Greenwood Advertising Co.
Knoxville, Tenn.

In writing to advertisers, mention "Selling Electricity"

Westinghouse Incandescent Lamps have always been sold and always will be sold as WESTINGHOUSE Lamps by the Westinghouse Company

Westinghouse lamps are mighty good lamps and we are proud to have the name on them. It is a matter of pride with us and a matter of protection for the buyer.

Take the tungsten. The man who buys a tungsten lamp with the Westinghouse label knows that he is getting the original continuous filament tungsten—the one that has a two year record for strength in all classes of service on railroads, in trolley cars and in mills where vibration keeps up every minute of the day.

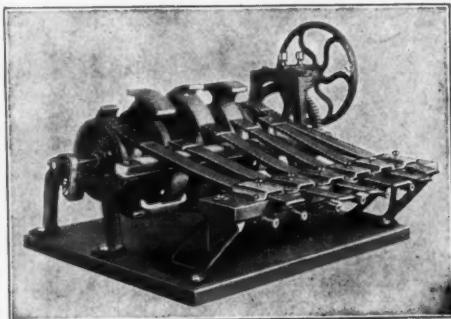
The wise lamp buyer looks for the name and it's a hard matter to get him to accept a substitute for the Westinghouse Wire Type Tungsten.

The Central Station man who supplied Westinghouse Wire Type Tungstens will tell you of enthusiastic customers, of many new contracts due to Wire Type strength.

We have a booklet on House Lighting which we want you to have. Ask for Folder 16-C.

WESTINGHOUSE ELECTRIC AND MANUFACTURING CO.
Incandescent Lamp Dept. Westinghouse Lamp Co. Bloomfield, N.J.

PROMPT SHIPMENTS!



No. 4 Heavy Brush, \$36.00 List

Dull's Flashers

Are nearly all in stock. A telegraph order, or one received in the mail before 10 o'clock a.m., is generally put on the cars the same day. Ordinary combinations go out on the second or third day. Our records do not show a complaint on a delayed delivery on our part in the

PAST FIVE YEARS

This means a great deal to you. You can order when the sign is finished, and the flasher will be there by the time the sign is hung.

REYNOLDS DULL FLASHER COMPANY
16-20 SOUTH FIFTH AVENUE CHICAGO

HOW TO REAP THE CHRISTMAS HARVEST—

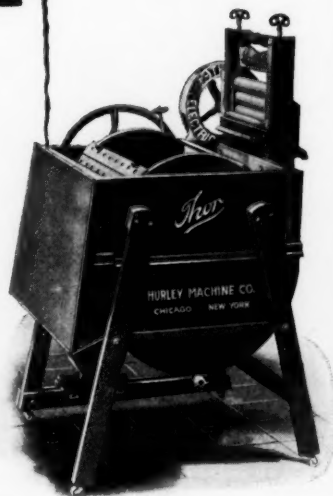
Take advantage of the opportunity to permanently increase your day load by calling the attention of your consumers to the

Thor Electric Home Laundry Machine

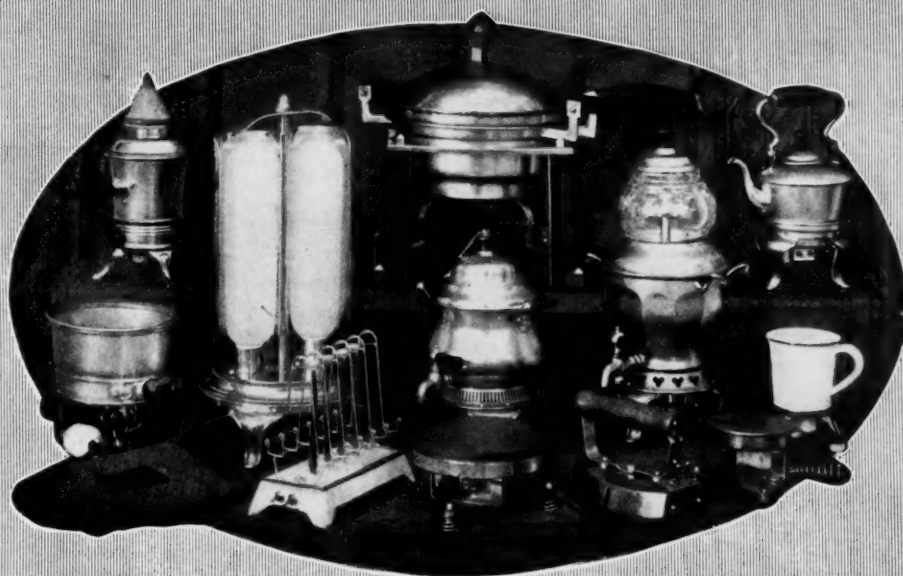
A Practical Electrically Operated Christmas Gift For The Home. Sizes, Prices and Designs to Meet The Various Requirements.

Send for Free Illustrated Catalog "E" and take advantage of our extensive Christmas campaign.

Hurley Machine Company
25 South Clinton Street, Chicago
New York, 1012 Flatiron Building



In writing to advertisers, mention "Selling Electricity"



An Electrical Christmas This Year

More electric Christmas gifts should be given this year than ever before. An unprecedented interest in electric heating and cooking devices has been aroused by country-wide advertising in scores of nationally-read magazines.

During 1911 G-E heating and cooking devices and G-E sewing machine motors have been advertised in more than 20,000,000 copies of 30 well known magazines.

Take advantage of the aroused public interest in these household appliances of electricity by advertising them locally as Christmas gifts. We will supply result-getting electrotyped newspaper advertisements, wall hangers, posters, booklets and other printed matter to help you in making your Electrical Xmas campaign a decided success.

General Electric Company
Schenectady, N. Y.

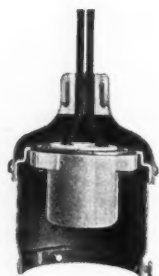


3282



In writing to advertisers, mention "Selling Electricity."

The ABolite—*Its Worth To You*



Many an Efficient Lighting System has been installed by an Illuminating Engineer and ruined, economically, by the man who owns it. As lamps have burned out he has substituted larger or smaller sizes, not realizing that to change from a long base to a short base lamp, or vice versa, throws the reflector out of position and destroys all efficiency. The lamp and the reflector must be in proper relation to obtain the maximum illumination. To change from a short to a long base lamp requires a change of shade holder **UNLESS YOU USE THE ABOLITE.**

The ABolite is a complete lighting unit, a combination of socket, shade holder and insulating joint. In addition there is an ingenious "positioning device" (see the central cut) which holds the socket, and is reversed to adjust for a change in lamp base.

ABolites are made in both Ceiling and Pendant types, and equipped with either Glass or Metal Reflectors for all Angles of Illumination.

Install ABolites and insure efficient illumination with any lamp.

Write for the Data Sheets.

The Adams-Bagnall Electric Co., Cleveland

New York Philadelphia Pittsburg Syracuse Chicago Atlanta

R. E. T. PRINDLE, Canadian Representative

Head Office, Windsor, Ont. Branches, Montreal, Toronto, Winnipeg

In writing to advertisers, mention "Selling Electricity"

and ELECTRICAL MERCHANDISE

NUMBER 4

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Entered as second-class matter, February 28, 1908, at the Postoffice at Brattleboro, Vermont,
under Act of Congress of March 3, 1879.

With "National" Truck Batteries

exceptional vitality of working parts is supplemented by the convenience of mechanical cell connections which afford quick access for inspection.

Handy effectiveness supplants the time wasting and disagreeable job formerly necessary every time a cell was inspected and encourages the operator to keep the battery in good condition by making inspection easy, quick and without expense.

The United States Light and Heating Company

General Offices: 30 Church St., New York. Factory: Niagara Falls

New York Boston Buffalo Cleveland Detroit Chicago St. Louis

In writing to advertisers, mention "Selling Electricity"

SELLING ELECTRICITY and ELECTRICAL MERCHANDISE

Edited by FRANK B. RAE, Jr.

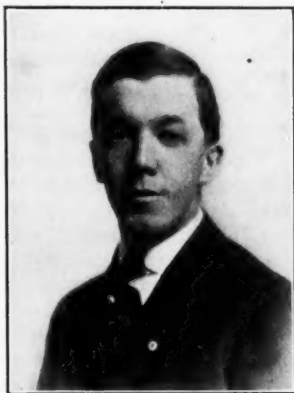
EARL E. WHITEHORNE, Managing Editor

An Industrial Campaign and a Lost Election

A Story of Recent Industrial Publicity in Hamilton, Canada

By GLENN MARSTON

The day after I got to Hamilton a telegram reached me addressed "care The Kelly Contract Agent, Hamilton, Canada." There was no delay whatever, which would seem to show that as soon as one mentions "Kelly" in Hamilton, the Hamiltonian instinct-



Thomas F. Kelly
Contract Agent, Dominion Power & Transmission
Co. Ltd. Hamilton, Ont.

ively thinks of the Cataract Company. Kelly eats, drinks and breathes Cataract.

This little telegram incident indicated what I later found to be a fact—that T. F. Kelly, contract agent of the local central station, is the best known man under thirty in Hamilton. Be-

fore I met Kelly I thought he was a keen old codger of about forty. There is a quality about his letters which is highly misleading, for he has the brains of a forty-year-old, coupled with the "get-up-and-git" of twenty. "Cataract," by the way, is the popular collective term used for the Dominion Power and Transmission Company, Limited, and some ten or fifteen allied companies.

There has been a lot of municipal ownership talk in Canada during the past five or six years, and it has worried Kelly. Hamilton got the habit of voting for municipal ownership regularly, and Kelly was afraid they'd really get a by-law through some time which would mean competition in Hamilton. Sure enough, the fifth municipal ownership election was called for this summer, and for the first time the company decided to conduct a publicity campaign. This publicity work was a delicate job. The really important thing to do was to popularize the company. The next important thing was to conduct the publicity campaign along such lines that the company's business would be benefited by the advertising, whether the city built a municipal plant or not. Here was where the company put in its best licks, and fortified itself

INDUSTRIAL HAMILTON

The Canada Steel
Goods Company,
Limited

The Canada Steel Goods Company Limited, is one of the most rapidly growing and progressive manufacturing concerns in Hamilton. The Company came to Hamilton because it could secure cheaper and more reliable power here than elsewhere.

Cataract power is used throughout the plant which manufactures steel whiffletrees, brackets, steel farm implements and two hundred styles of steel hinges. All of the processes employed in making hinges and other steel goods of the highest quality are performed electrically, and the demand for Cataract power at this plant will be nearly doubled during the coming year.

"Cataract power has enabled us to build up an excellent business," says A. F. Hatch, General Manager of the Company. "A business like ours requires a great deal of power, and its profitable conduct is largely dependent upon getting that power at the lowest possible cost, and using every bit of it. When an electric machine is shut down all power cost ceases, while with other forms of power engines must be kept up to full capacity even if only half the machines are running. Manufacturers who contemplate establishing new branches will find Cataract power one of the greatest inducements in favor of locating in Hamilton."

Steel comes into the factory in the form of steel rods and sheets. The sheets are cut by an immense electrically operated shear, exerting a pressure of 45,000 pounds. The strips are then cut into proper shapes, the eye holes cut and finished, and the flanges turned to receive the hinge rod.

Electric polishers then finish the work, or else the hinges are sent to be electroplated.

The Company has a complete machine shop in which it manufactures all its own stamps, dies and special machinery, using Cataract power for this purpose.

If electric power has played such an important part in the prosperity of this Company, is it not probable that you can profit by the use of Cataract power? Phone our Contract Department.

**Hamilton Cataract Power, Light
and Traction Company, Limited**

TERMINAL BUILDING

Phones 3301-2-3-4

This is one of a series of advertisements showing the part played by Cataract power in the industrial development of Hamilton. If you know of any manufacturer or business man outside of Hamilton who would be interested, you will be doing the City a service by cutting out this advertisement and sending it to him.

One of the "Industrial Hamilton" Ads. It's Worth Reading

against the future, no matter which way the election went.

My discreet silence thus far proclaims more loudly than words the fact that the city cast majority number five in favor of municipal ownership. Even the ballot shows what publicity will do. The largest total vote on any preceding by-law in the history of Hamilton was less than 4,000. At this election the vote was within a hundred of 7,000, and more votes were cast against municipal ownership than had ever been cast for it previously. Municipal ownership carried by a majority of about 5 per cent, the lowest majority in the history of the "Government Hydro-Electric Scheme."

But back to our campaign:—The

resolve to conduct a series of advertisements, dealing with "Industrial Hamilton," which would focus the attention and the interest of the city. These ads were prepared and published in the form shown in the accompanying reproductions. They attracted wide-spread attention and received editorial comment, not only in Hamilton papers, but in other papers in all parts of the Province. The one which provoked the greatest pleasure was the advertisement describing the cigar box factory of Adam Beck. It doesn't sound interesting, until you learn that Adam Beck is chairman of the Ontario Hydro-Electric Commission, the most strenuous advocate of municipal ownership in the Province, and—a fact heretofore unknown—a good customer

"Cataract Company" in the past few years has made Hamilton the greatest manufacturing city of Canada and the Company's power business is its big business. The purpose of the publicity campaign was to show the workingman how the Cataract Company had given him his job by inducing his employer to locate in Hamilton, and at the same time to prove to the employer what the Cataract Company has done for him. Above all, it was intended to arouse in the hearts of the Hamiltonians a real pride in the Cataract Company.

From these necessities came the

of "his sworn enemy," the Cataract Company.

The press comment, however, was not confined to the Cataract advertising matter. The company instituted a series of excursions, entertaining prominent city officials, manufacturers and business men, taking them over the power houses and the street railway lines and demonstrating to them what opportunities lay before the city if everybody worked together for its advancement. These tours were all day jaunts by motor car and included a 35-mile run to the generating station, some thirty miles around the company's storage lakes, luncheon at the St. Catherine's Club, and dinner at the Gumsby Village Inn on the way back. There were representatives of the local newspapers always present. Of course, we had to dig up a new peg to hang our story on each time, but results show how we got away with it. There would be a couple of columns in each of the local papers, an editorial, perhaps, and in a few days the clippings from jealous neighbors would begin to come in. Even the municipal ownership organ felt constrained to compliment the company on its publicity, saying it could not help benefiting the city. All the papers showed unusual interest, and were not found in the least lacking in desire to promote Hamilton's indus-

trial welfare. About twenty industries were written up. They were of widely diverse character, including tin cans, tobacco, bread, paper boxes, stoves, harvesters, tungsten lamps, cigar boxes, nails, electrical machinery, bale-ties, hinges, screws, whiffle-trees, fences and gates. Only one industry failed to permit the most thorough examination of its plant. This was a milk company whose name suggested that its product was of the highest quality.

In getting material for these advertisements, Mr. Kelly secured from each manufacturer permission for me to visit his plant. I was shown every courtesy, and in turn never permitted an advertisement to be published without first showing it to the head of the interested firm. In only one case did

INDUSTRIAL HAMILTON

The Smokeless City

Hamilton is to-day the cleanest industrial city in the world. Many another city with no industrial pretensions whatever would be proud of the unusual atmosphere which is Hamilton's.

Pittsburg is America's industrial centre, and is admittedly the dirtiest city on the Continent—yet Hamilton maintains many industries of an exactly similar nature to those of Pittsburg and still has the cleanest and purest air to be found. There is no branch of the steel or electrical manufacturing industry in Pittsburg which has not its counterpart in Hamilton.

Why, then, is Pittsburg the dirtiest industrial city and Hamilton the cleanest one? Because Pittsburg has no Cataract Power. Where Pittsburg uses millions of pounds of coal, of which eleven ounces in each pound go forth to pollute the air, Hamilton uses harmless and cheap Cataract Power. Where Pittsburg blasts with coal Hamilton uses air and oil pumped together by Cataract Power.

Where Pittsburg's householders spend hundreds of thousands every year in cleaning and replacing dirt-ridden furnishings, Hamilton has no such handicap. And Pittsburg pays more for coal than Hamilton does for cheap Cataract Power.

And further—what of the morals of dirt? What did we learn from the famous "Pittsburg Survey" of a few years ago? Was it not that the people became so steeped in grime that they lost all sense of cleanliness and so slid down the ladder to unspeakable degradation?

And in Hamilton! Here is not only the smokeless city, but the stainless city. Cleanliness and crime can never join hands, and since Cataract Power has made possible the cleanest city in America, does it not seem probable that it is in a measure responsible for the superior standard of living which is so creditable to Hamilton?

**Hamilton Cataract Power,
Light & Traction Co., Ltd.**
Phones 3301-2-3-4. Terminal Building

This is one of a series of advertisements showing the part played by Cataract Power in the industrial development of Hamilton. If you know of any manufacturer or business man outside of Hamilton who would be interested, you will do the city a service by cutting out this advertisement and sending it to him.

This Ad. is an Unusually Clever Talk on the "Smoke Nuisance"

I have any correction made, and this was by the Canadian manager for an American manufacturer, who was afraid to have me quote all the good things he had said about the Cataract Company.

The majority of the factory managers had the advertisements concerning their own plants clipped and sent out with their regular mail. The

credit cannot be given to William Mullis, the City's Industrial Commissioner and the aforementioned Kelly, for their efforts in landing industries after they had nibbled at the publicity bait.

The best evidence of the value of the Company's advertising is the fact that many prospective manufacturers made their inquiries directly to the Company instead of to the other organizations,

which were engaged in the search for new industries. On a single morning five names of prospective manufacturers were turned over to the Industrial Commissioner by Mr. Kelly. Kelly never waits for manufacturers to decide about coming. He just starts out for the power contract as if he *knew* they were coming. It is of record that he has actually gone out and secured power contracts from concerns even before they had their building plans drawn.

The campaign was designed to produce profitable results for the company, irrespective of the outcome of the election. It failed to prevent the authorization of the municipal

plant, for though the size of the vote occasioned some curious comment, the election was final. The influence of the campaign on the industrial growth of the city, however, was more than gratifying. It attracted new industries, in search of cheap power; and it cemented the satisfaction of the many consumers of Cataract power.

INDUSTRIAL HAMILTON

H. L. Frost
Wire Fence
Co., Ltd.

Thirteen years ago a man started making wire fence in Welland. His help consisted of a pair of overalls and a dirty shirt. Today he has a weekly payroll of \$2,000, all of which is spent in Hamilton, and has enough wire stored in his yard to reach two-thirds around the world!

That is a typical example of what cheap Cataract Power is doing for Hamilton's industries. There is not a single process in the manufacture of Frost Wire Fence which is not done by cheap Cataract Power.

Wire comes to the factory as "wire rods" and is drawn down to the proper size by electrically-driven machines. Every safety device known to the industry is used in the Frost factory, with the result that there has never been a serious accident in the factory.

After the wire is drawn it goes through a number of baking processes before being galvanized. After being galvanized the wire is taken to the looms, each driven by an individual motor using cheap Cataract Power. Here a dozen steel fingers, with more than human accuracy, grasp the wire, twist it with lightning-like rapidity, and out comes Frost Wire Fence.

The galvanizing of Frost Wire Fence is done by cheap Cataract Power, and the great tubular gate frames are all electrically welded so that there is neither seam nor joint in a Frost gate. These processes would be absolutely impossible without electric power.

"Cataract power enables us to manufacture much more economically than we otherwise could," says Mr. H. L. Frost. "For example, we can draw wire more cheaply with Cataract power than it can be drawn at the mills, and this assists in materially cutting down the cost of raw material. Cheap Cataract power was what brought us to Hamilton."

By the way, are you letting cheap Cataract power help you to greater profits, as almost all Hamilton manufacturers are? Phone our Contract Department.

**Hamilton Cataract Power,
Light & Traction Co., Ltd.**
Phones 3301-2-3-4. Terminal Building

This is one of a series of advertisements showing the part played by Cataract Power in the industrial development of Hamilton. If you know of any manufacturer or business man outside of Hamilton who would be interested, you will do the city a service by cutting out this advertisement and sending it to him.

Another of the Series

President of the Board of Trade had one sent out with each letter he wrote on industrial development, choosing an advertisement, in each case, which would be likely to interest the particular correspondent to which it was sent. The campaign was thoroughly successful in interesting prospective manufacturers in Hamilton, but too much

Keeping That Third Door

A Few Suggestions About Telephone Manners

By W. E. BAYARD

Nearly every store, no matter how small, has at least two doors, one in the front for customers and one in the back for the reception and delivery of goods. Naturally, the merchant sees that these doors are kept free from obstruction and easy of entrance. He realizes that the more accessible he makes his store, the more people will come to it.

But there is a third door that is equally important, though he is fre-

meet him with a frown, shout "Oh, you've got the wrong store!" and slam the door in his face. But over the telephone how often it happens!

This rule holds true of any store, any office and most particularly of any public utility—Beware of the careless voice over the wire. The man who talks over the telephone for the central station represents the company, right then, in his voice. To the ear on the other end, that voice *is* the

company and the character of that central station may be made or marred, for there is no opportunity for the usual influence of personality. The "atmosphere" of the office has no effect, as when the customer or prospect talks



From a Recent New York Edison Co. Publication

quently slow to realize it—it's the telephone. Why will a man spend his time, thought and money in perfecting the service of his store and in raising its efficiency to the highest point, arrange the goods in his show-windows to duplicate his carefully planned counters inside; while his lighting, heating and ventilating systems will be the best that money can buy, and his sales and delivery methods the envy of his competitors; and yet allow his employees to be careless, neglectful and at times even rude over the telephone, and often set the example himself?

If a stranger walked into his store to make a purchase, this merchant would never think of greeting him with "Hello, hello! Well, whadyer want? Talk fast, I'm busy!" Or if someone came in by mistake, thinking he was in another shop, he would never

with you, face to face.

It's a curious thing the way we ate over the 'phone, the way we reserve a special set of "manners" for the transmitter. There isn't one man in five hundred who shows the same courtesy and cordiality when talking over the telephone that is never failing in face to face conversation. Yet he doesn't realize it. It is simply the telephone habit which we all have—we say our say and hang up.



Another New York Edison Cut. The Book was called "Telephone Courtesy"

Of course, for the ordinary routine telephone call this is all right, there is no emotional tension, and both parties are intent only on the business at

hand and to ring off. But it is in the other calls that danger lies, where the disgruntled customer calls up to complain of some real or fancied grievance, where the new customer wants to ask some "foolish question," or when someone who might be a customer calls up for a similar purpose. Also, there are those times when anyone at all may 'phone in and find you worried or disgruntled over some quite irrelevant matter, but yet in an "off mood" and showing it in your voice and manner. In all these cases we have this dangerous element. You can't see the other man, and the other man can't see you. Where

one quick look, in face to face conversation, would set you in tune, here the preliminary adjustment is impossible. You answer the ring with the best of feeling and some voice immediately begins to find fault and be unreasonable. You can't see that the man is a crank or simply

in the heat of anger and to be handled with care. All you get is a slap in the face without warning. It "makes you sore."

The other man calls up the central station to ask a civil question. He does not know that the man who answers has just discovered a most appalling blunder on the part of an assistant, which has brought down trouble on his head, so the "caller" is incensed at the manner and tone of voice. He decides that the Peoples Light Company is run by an ill-bred grouch. Or it may be only a "fresh" or inattentive switchboard operator, or a half-asleep office boy who makes

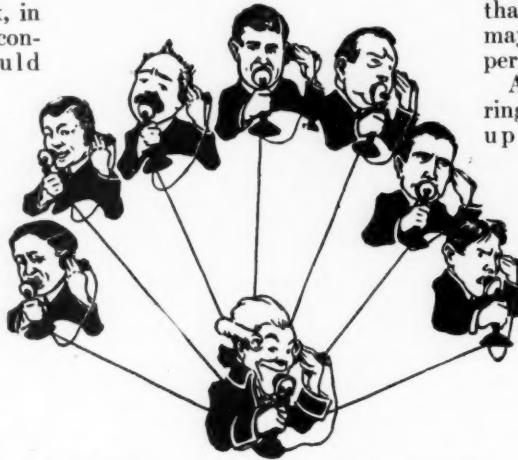
the bad impression, but it is enough. And you never know when these calls will come.

There are so many things that can happen. A man, for instance, has been promised some lamps and for some reason hasn't received them. He forgets it till some dark day, when a careless window cleaner breaks two Mazdas in his show-window and he has no more to substitute. He calls up the electric company in indignant disgust, and begins to quarrel with the first ear he can reach. If he came around in person, the situation would be easily handled, but over the 'phone there is danger that somebody else may lose his temper, too.

Again, the bell rings and you pick up the receiver and some unknown voice says, "!!!! Holy Salt Peter! is this another office boy? Do you know how to answer a question?" The trouble is that he has been transferred to three people already and

is mad clean through. Naturally, you didn't know this, and his first blast is apt to arouse your ire. Don't let it. The man behind that voice can't see you any more than you can see him. He can't see that you are a white man and wide awake or he would have calmed down.

This third door to the central station, this third door to the electric store, is mighty important. See that the hinges are well greased; you don't want it to open hard and squeak as though nobody had been in it for a year. See that the latch works: better have somebody there to open it, somebody who can act like a welcome.



With so Many Different Kinds of Ears on the Wire it Does'nt Pay to Take Chances

And have that door big enough. "Busy wires" are discouraging and if your line is so active that customers are forever having to wait because your "line is busy," it is just as bad as though you made them enter your store one at a time, waiting outside till the man before is through his errand.

And that is only one side of it—the



Hours Spent This Way Cost Money

receiving end. The telephone is an extra pair of legs ready to work for every central station salesman. Use them! The hours spent waiting, with cooling heels, outside the door marked "Private" are just as costly in salary as the hours spent inside talking business; and it is the telephone that solves the problem. Many a time when the salesman calls on the busy prospect and finds three other callers waiting disconsolately, but all ahead of him, he can step out to the corner drug store and call up his man by 'phone and make a definite appointment for later in the day. Many men are hard to reach in person, simply because they are busy, and you wait your turn; but few of them are inaccessible by wire. The personal call may kill an hour without result, the 'phone call will make a definite engagement which will carry the salesman in past those others who have just dropped in and are waiting.

Of course, this application of the telephone has been uti-



lized by many central stations and is universally appreciated. The opportunities it offers the sales manager, to keep in intimate touch with the public, are sadly neglected, however, by most companies. It takes but a minute to call up the woman, who, the paper says, is about to give a bridge party, and to tender an electric hot water kettle on trial; but it is most effective and the selling cost extremely low. There are a hundred similar instances where every lighting company in the country can employ the 'phone as a selling instrument to good advantage.

But it is the other aspect that is most important. Watch that Third Door. Don't let it be a trouble maker. Impress the public mind with the fact that you are always at hand and ready to serve, at the other end of the wire. Make them believe that there is no more chance for misunderstanding or



"An Extra Pair of Legs" That Carry You Beyond the Door Marked "Private"

delay where the order or the complaint is made over the 'phone, than if the call is made in person. Many companies advertise telephone numbers where calls are welcomed by day or night. It is a good point. Make the Third Door the most hospitable door

of the three. It will save you time, much distress, and in the course of a year, a considerable amount of money.



A New Idea in Cards for Vacant Houses

The plan of having post cards printed on tags which are hung on the chandeliers of vacant houses when meters are temporarily removed, has been used by a number of central station companies. The Kansas City (Mo.) Electric Light Company has found a way to improve upon this plan; when the new tenant moves into a house wired for electric service, he finds an envelope on which is printed "Notice: How to Turn on Electric Light." This envelope has nothing on it to indicate that it is from the electric company, so that the tenant naturally supposes that it is a reminder left by the former occupant, or the owner. Opening it, he finds inside a card beginning "Don't stay in the dark. Call 50 Main and arrange to have the electric service connected immediately." Below this is a post card form addressed to the company, which facilitates ordering the service.

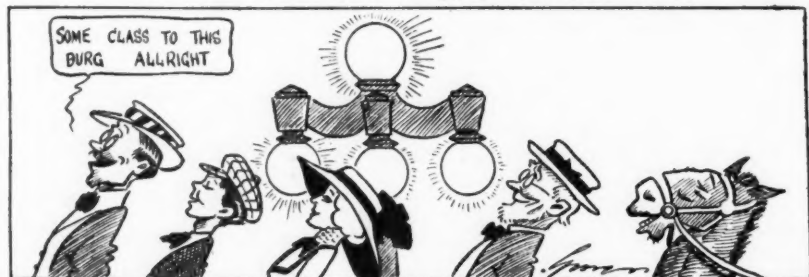
German Statistics on the Safety of Electricity

According to figures compiled by the German Statistical Office, out of a total of 5,379 fires in Germany of known origin in 1908, petroleum was responsible for 4,208, gas caused 878, while only 293 were started by electricity. Less than 6 per cent! And with this should be taken into consideration the fact that there are forty million electric lamps in use, and only twenty million gas lamps, in Germany, which makes the figures in favor of electricity even better.

Another superiority of electricity is that by the Prussian police regulation, gas, spirit, petroleum or candles are absolutely forbidden for lighting purposes in places where there is more than ordinary fire risk, such as theatres. This, coupled with the modern improvements in installing and wiring methods, tend to make a fire from a short-circuit almost impossible.



AS THEY USED TO WALK ALONG JEFFERSON STREET



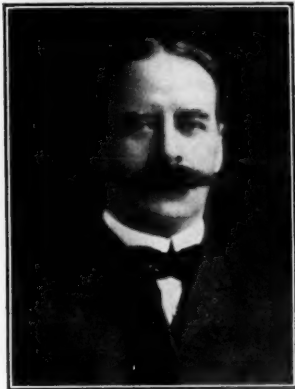
AS THEY DO NOW

This Cartoon Appeared in a Louisville Paper the Morning After the Decorative Lights on Jefferson Street Were Lighted. See Page 237 for "Before and After" Photographs

Impediments to the General Introduction of Power Wagons*

BY HAYDEN EAMES

It seems to be a habit of the practical mind to try to stretch its own specialty to the solution of every problem it encounters, whether obviously fitted for it or not. For many years this tendency, directly or indirectly, delayed the work of introduction of power wagons more perhaps than any



Hayden Eames

other. Those most interested in the introduction of the power wagon during these years were engineers; very few others were interested at all, and, in consequence, took the engineers' point of view on faith.

This peculiar mental bias, however, concentrated the attention of those interested upon the search for some engineering solution, and they were correspondingly diverted from any attempt to remove the true impediments to the introduction of the power wagon during that period, which were almost exclusively administrative, and "psychological," and in a less degree financial.

While the introduction of the power wagon has made some progress during the period named, it is still conservative to say that "the surface has not been scratched." Power wagon fail-

ures are still being reported by people who are trying to use the new machine in the old way; who, unconsciously, are limiting the capacity of the power wagon by the practices of draft-animal days. Unfortunately, it is not only going to be necessary to directly educate owners and prospective users of power wagons, but their employees, even to the drivers, who have in most cases got to modify their points of view and methods before the introduction of power wagons can be expected to be general.

Like much other labor-saving machinery, especially in the transportation field, the power wagon speeds the men up all along the line. The operators, although much fewer for a given product, have to work harder and faster, but almost invariably obtain their compensation from shorter hours, perhaps not in proportion, but still to an agreeable extent. The increased speed is the first thing the driver feels. It takes him some little time to find his own advantage.

A good illustration lies in a story which was told me by an Adams Express Agent in Buffalo some 8 or 9 years ago. At that point and at that time, the Adams Express Company had the first really successful installation of electric vehicles. Owing to a poor selection of the size of the vehicles in relation to the routes covered and the service to be done, the station was not as economical as it could have been made, but it was at that time an exceedingly well operated station, and in all probability was at that time, in spite of the above mentioned handicap, delivering express packages more cheaply than it was being done anywhere else in the United States by any means whatsoever. When the wagons were first introduced, the drivers immediately felt the exactions of the greater speed; they felt themselves "speeded up," and they were loud in their denunciations of the whole scheme. They rejoiced in every accident that occurred and took delight in the misfit electrical conditions under which, at first, the vehicles were charged. At the time I speak of, the whole station had changed. The drivers had discovered that instead of being dragged back from the last package on distant routes at a very slow rate by a tired horse, the electric express wagon now "running light" brought them back at even a faster rate than that at which it had been running during the day. As one of them said to

*Abstract of a paper read before the Electric Vehicle Association of America, Second Annual Convention.

me: "I can deliver all my packages now, and get home a half hour sooner than I used to." At that time, the Express Agent offered to buy a new team with brass trimmed harness for any one of the electric wagon operators that would drive it, but it was rejected with scorn.

All this education takes time, and hardly anybody is addressing himself to try to bring it about.

Perhaps the commonest of all bad practices is that of applying the power wagon to a delivery route previously operated by a horse wagon of the same size, and limiting it thereto. The difference in the actual cost of operation between a given size of horse wagon and a given size of power wagon is seldom in favor of the latter, and this is true, also, of the first cost of the complete unit. The principal economical virtue of the power wagon lies in its character of labor-saving machine. Under almost all conditions the price of drivers is the largest single item of expense. Taking the station hands into consideration, the pay-roll is always the largest single item of expense.

The problem of the successful user of the power wagon then lies in the question of "How much goods can I deliver per man per day?" or, "How much work can I do with a man per day?"

It does not seem to take an Isaac Newton to realize that if the work of a man operating the new machine is arbitrarily limited to only what he can do with the old, nothing is gained. In all regular delivery systems, the problem is not only to lay out the routes to fit the new machine, but to select the machine sizes so that the largest possible machine that can be fully loaded will completely empty itself over a selected route in a man's day's work. This extremely simple mathematical thought seems to be almost incomprehensible to the majority of power wagon users. In some express companies, and others, whose principal business is city transportation, certain routes have become a positive institution, and, although originally of an entirely arbitrary selection, are assumed to be as immut-

able as the value of π . This sounds like a joke, but it is anything but a joke to those of us who have been frequently called upon to demonstrate the superiority of power wagons over draft-animals. Those who have not had the experience will be perfectly surprised at the frequent high grade of intelligence which declines to rid itself of the inherent necessity of operating on these time-honored routes.

We are, however, occasionally treated to a refreshing case of independence and directness in the substitution of power wagons for horse service.

In the Fall of 1901, the Adams Express Agent in Pittsburgh put in service at East Liberty a light electric express wagon, and in doing so gave instructions to the agent at that point, against the latter's protest, that he should "lay off all four of his horse wagons, and do his work with the electric," that he (the Pittsburgh Agent) would decide later whether he would allow him any of the horse wagons back or not.

This was certainly "taking the bull by the horns"; but, as the East Liberty Agent's "job" was at stake the result justified the risk, and only one wagon of the four was put back into service, and that only as an "extra." Of course, the intentions of this "barn-yard" approach could easily have been defeated had the size and speed of the wagon been unsuitable to the particular service to be performed.

A good example of what it means to "speed up," not only the operators, but the daily routine and methods, is afforded by the ordinary practices of our great express companies when horses were a rule with them.

I have before me a careful plotting of ten established routes of different express companies in New York City made in the Spring of 1902. You will probably be surprised to discover that from the time the horses left the barn in the morning until they got back at night, the teams were standing still 40.4 per cent of the time, the maximum idleness on any one route being 64.25 per cent, the minimum 27.25 per cent. At least 50 per cent of this is due to the fact that the gait of the man matched the gait of the horse. The draft-animal belongs to a slow age, and the man who drove him as a rule adapted himself to it.

The methods of loading and unloading and of handling packages, the shipping room arrangements and routine are all adapted to the gait set by the horse, and all tend to deprive the machine owner of his advantage; and, remember, these speeds are not set to

what the horse can do or necessarily actually does, but what he *may* do. Long practice has sub-consciously led to their adjustment to the uncertainties of the horse in spite of the goad of competition. If you have to allow a half hour's leeway in 25 per cent of the cases in which a horse has to make a two hours' trip, what is the use of trying to save 15 minutes of a half hour's loading time?

This, roughly, illustrates the sub-conscious mental process by which all these measures accommodate themselves to the horse, and may indicate generally, why they have all got to be changed before the power wagon will be generally acceptable without question. Those who have been through the experience cannot fail to recall the immediate effect of the use of the power wagon toward remedying this condition. The difficulty is to get the first one purchased and properly used.

I have before me a plot of the far-East Brooklyn route of the New York Transfer Company, both with horse service, and with electric vehicles. This involved the operation of what is known as a route-wagon, and no opportunity whatever was afforded at the time to modify the route, or take any other direct advantage of a labor-saving character of the power wagon. During the trip the team stood still 30 per cent of the time, but the power wagon stood perfectly still only 22 1-4 per cent of the time. The actual difference between the idle periods of the two outputs was three-quarters of an hour, but the power wagon completed the service one and one-half hours before the team. Of course this wouldn't do.

The experiment was not made for the purpose of introduction in that instant, but in combination with other available routes, indicated to the demonstrator at once the immense saving that could have been accomplished had the education of the drivers, and the speeding of the package handling, the proper arrangement of shipping rooms, and wagon interiors, to that end, and the reconciliation of wagon capacities and route arrangements been immediately begun. But, perhaps, it is too much to expect that the development of special mechanical facilities for loading and unloading will precede rather than follow the general introduction of the new method.

The reality of the impediment which present handling facilities interposes to the introduction of power wagons can be illustrated by a case I once came across of a high grade dry goods company in one of our largest cities, whose installation of electric vehicles could not be made to pay. Examination developed the fact that no effort was made to crate or handle the packages in the waiting room with any reference whatever to the respective routes upon which they were to be delivered, and that the routes were laid out with equal disregard to the shortest possible empty haul: following their practice with draft-animals, the wagons were driven to the opening points of the routes, and, extraordinary as it may seem, the packages were all taken out of the wagons, and spread along the beds of grass between the curb and sidewalk. Some of the wagons carried one boy, and some two boys—each with a large canvas bag. Each boy pawed over the pile of packages and selected and put in his bag the packages belonging to the block that he was to cover, and those that were left the driver took back into the wagon and drove to the point at which the boys were respectively expected to "finish their bags." Rather than this, the firm should have abolished its entire wagon system and employed boys with bags to carry the packages to the destinations on public trolley cars.

To the credit of the owners I must say that they finally looked into it, and the difficulty was properly remedied with correspondingly successful result. This was, of course, an extreme case, and unusual in the use of the boys, and the sorting of the packages on the ground; but the shipping room arrangements were by no means unusual. In fact, inadequate loading or unloading facilities are almost universal. The simple convenience of a ready-loaded crate to slip into the wagon upon arrival is most uncommon, and such suggestions are almost invariably resisted—not for any reason, but "Because we haven't been accustomed to do so." It sometimes happens in large shops that packages of a certain large classification are of a size and character which admit of their delivery through chutes to the shipping room. It is almost invariably the case that by a slight change in the arrangements, the sorting of these packages according to wagon routes can be made once and for all on the floor where and when they are put in the chutes. But, as far as I know, it has heretofore proved impossible to induce anybody to do this, although

I have yet to hear a valid objection offered to it in any case, and yet the delivery manager of such an organization often calls himself a "businessman," although he unhesitatingly keeps the most expensive unit of his investment standing idle, apparently, for no other object than to relieve the strain on his own ingenuity.

Many of these requirements could be made to improve the horse service if the horse himself had the endurance to stand it—a point that is frequently overlooked. As has often been said, there is no watt-meter on the horse, and, in consequence, he is generally worked more or less beyond his normal capacity, the loads and routes being more or less subconsciously selected to that end. To save this loading time, therefore, means to cut down the horse's rest, without which he cannot do the work assigned him, but the power wagon *needs* no rest in the same sense, and it is a large enough investment to make it desirable to conserve this time.

In considering this general question of reducing delays and loading times, it is often overlooked that the day's mileage is a rough measure of the work performed by a unit in a given service. An hour's delay on a 5-ton horse truck, averaging say 2 1-2 miles an hour, may be a large percentage of a day's work in that unit, but measured in dollars it represents only a third of the loss represented by a similar period of idleness in a 5-ton power wagon whose average running speed is 7 1-2 miles per hour.

It is very hard to persuade the average user that the idle periods in the day's work in any way affect a comparison of the draft-animal and power wagon. The reactionary effect of external conditions goes deeper, and is far more nearly universal than the mere lack of facilities in individual establishments. For example:

The dimensions of many of the down-town alleys in Chicago put a definite limit on the truck dimensions that can be used therein, and nearly all trucks working in that part of the city load or unload in the alleys. The peculiar arrangement of the railroad freight yards in

Chicago curtail the efficiency of all methods of highway transportation to such a degree as to greatly dwarf the question of their relative advantages. Those who have investigated this particular case closely state that, it is no exception to the rules that the conditions can be perfectly well met by a rearrangement of these yards with direct reference to the use of automobiles with a probable improvement of 150 or 200 per cent in their loading and unloading capacity. It is reported that the railroads themselves are alive to the situation, and are approaching the solution in a more or less dilatory manner with an entire ignorance of the expert knowledge that is available on this subject in the automobile field.

There are many analogous cases throughout the country; many of them can probably be partially met by special portable loading apparatus of one kind or another applied to the trucks themselves. Next to the increase of factor of safety on operating cost to be obtained by improvement in tire maintenance on the heavier trucks, there is perhaps no single field in which the designing engineer, strictly so-called, could play as large a part in developing this business as right in this field of portable loading apparatus and the design of trucks with reference to special service. This is one of the few departments of automobile knowledge in which there is anything yet to be learned from draft-animal practice, or, rather from the practices that existed during the draft-animal period.

Up to date the handling of fresh small fruits at automobile speeds has almost invariably entailed loss, and it is ridiculous to suppose that a little ingenuity properly applied would fail to immediately meet this case to which the improvement in speed and certainty offered by the power wagon gives the fruit handler a most obvious gain. Nearly all the cotton in the Gulf ports, and throughout the South, is handled by negro roustabouts. It is fairly cheap and hard to beat for economy, but it is uncertain and sometimes too slow. The condition has been partly met by the extension of railroad spurs; but about two years ago I knew of a very considerable order for electric 5-ton trucks that was lost because portable jib-cranes could not

be applied to them in season to meet the conditions.

Mechanical ignorance on the part of prospective users, of course, has got to be expected. At least in the electric field no one is in so fine a position to cope with this as the central stations, and many of them are doing yeomen's service in this direction; but we all remember the time when it was otherwise.

The whole question of the rapid introduction of the power wagon today is one of public education. We have no right to look for any engineering advance so overwhelming as to relieve this condition in time to be of any great service in the work. The general lines along which experience has indicated this education to be necessary, I have endeavored to set forth above. No associations, no corporations, no individuals are in such a position to force this education as the central stations; and no one whatever, except possibly the team users, is likely to reap as great an ultimate profit by it. The liberal manner in which this cen-

tral station business has been conducted during the last few years, and the local newspaper advertising involved thereby, means the availability of the press for educational purposes to a degree even greater than that justified by the public interest in the question.

Louisville to Increase Street Installation

A system of ornamental standards with opalescent globes recently installed on Jefferson Street, between Second and Fourth streets, in Louisville, Ky., has proven so successful and has resulted in so much favorable comment that the Commercial Club of that city is taking steps to have Main Street, the wholesale thoroughfare, similarly lighted. The Federal Sign System, the Louisville Lighting Company and the Kentucky Electric Company are co-operating on the project, and it is expected that contracts will be closed within a short time.



An Interesting Comparison. Photographs of Jefferson Street, Louisville, Ky., Before and After the New Street Lighting was Installed

Effective Residence Street Lighting at North Yakima, Wash.

The flourishing little city of North Yakima, Wash., in the heart of the far-famed apple section of the Northwest, recently celebrated the completion of a street lighting installation which is declared by many to be the most beautiful in the West. The population of North Yakima is a little over fourteen thousand.

The installation covers ten blocks on the principal residence street of the



The New Lights by Day

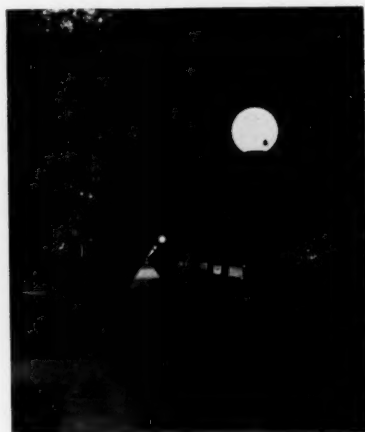
city, Naches Avenue, which is very wide, and has 30 feet of parking through its center. The posts were furnished by the Independent Foundry Company at a cost of \$23.00 each, and measure nine feet high to the center of the 20-inch, opalescent globe on top, being spaced about 100 feet apart and set close to both sidewalks.

There are in all 80 posts, 40 on each side of the street, and their plain and dignified design, coupled with the effect of the low-hanging trees above, gives them a striking appearance, as may be seen from the accompanying illustrations. Each post is equipped with a 100-watt, multiple, tungsten lamp. The system of wiring consists of iron conduits, through which is run lead covered cable, each block being controlled from a separate circuit run from the alleys behind the street. In

other words, there are twenty circuits in the ten blocks.

The installation was effected under the supervision of J. E. Davidson, of Portland, General Manager of the Pacific Power & Light Company, and, according to the contract made by the company with the city of North Yakima, the company installed the system, and the city is to pay for it at the rate of 10 per cent of its value per year, without interest. As the cost of the installation complete, including the painting of the posts, was \$6,505.00, this means that the city pays a little over \$650.00 a year, which makes the installation cost a little more than \$80.00 per post. The lamps burn all night and every night, for which the company receives \$20.00 per post per year, or \$1,500.00 for the entire installation, they maintaining the lamps, but not the globes. The company has a one-year contract at present, but when this expires they expect to get a ten-year contract from the mayor and the commissioners.

The system was turned on by Mayor H. H. Schott, of North Yakima, in the presence of over 2,000 people, who cheered heartily as the lights flashed on when the mayor pressed the button. A stand was erected at the corner of East Yakima and Naches avenues, and on this, besides the mayor, were Local Manager H. R. Kingman, of the Pacific



Night View from Same Spot

Power & Light Company, J. E. Davidson, General Manager for the company, President H. C. Lucas, of the North Yakima Chamber of Commerce, and a number of councilmen and other city officials. Short speeches were made by Mr. Davidson, Mr. Kingman and Mr. Lucas, and by Mayor Schott, the latter concluding his remarks by suggesting to the crowd that it view the improvement from various points of vantage up and down the avenue. This suggestion was at once acted upon, and, led by the Young Men's Christian Association band, playing a lively air, the people marched up and down the street, cheering the new illumination.

The effect of the installation, both by day and night, is exceedingly beautiful and most unusual. The shade trees on Naches Avenue are cut low, which necessitated a short post and these two long lines of shining globes together with the two strips of asphalt pavement and the parking up through the center make the situation very unique and appealing. The sun, shining on the opalescent globes, produces an especially pleasing effect in the day time, and the people of North Yakima are well pleased and justly proud of the new feature of their city.

North Shore Company Offers Bonus for Old Houses Wired.

A cash bonus of \$100 to every agent securing contracts for wiring 100 old residences during the coming year, besides a commission of \$1 for each separate contract of this nature secured, is what the North Shore Electric Company is offering to its agents as an inducement to break all records in wiring old houses.

The North Shore Company, which furnishes electric light and power service in the suburbs of Chicago, seventy-two towns in all, has carried on an old house wiring campaign for the past two years which has been highly successful. Last year the company's agents secured contracts for wiring 610 old houses, while this year the total so far is 1,029.

Owing to the liberal bonus offered by the company it is expected that next year will see at least double this number of old houses wired, as the company's agents are already planning an aggressive campaign to begin with the new calendar.

Electric Service and the Automobile Owner

Excerpts from a Handbook for Autoists Recently Issued by the New York and Queens Electric Light and Power Co., Long Island City, N. Y.

"A Little Book for Automobile Owners (All Kinds)" is the title of an interesting little piece of literature recently issued by the New York & Queens Electric Light & Power Company of Long Island City, New York, and designed for circulation among owners of all sorts of automobiles, electric or gasoline.

The book contains a great deal of information that will be of value to the motorist, especially regarding the practical uses to which electricity may be put by the owner of any sort of motor vehicle. The first of the nine sections in the book describes the territory served by the company, covering a total area of 125 square miles, in which there are owned and operated over 5,000 automobiles, including both gasoline and electric vehicles, and heavy trucks as well as touring cars and runabouts. This territory embraces Long Island City, Flushing, Richmond Hill, Jamaica and numerous smaller towns with a total population of nearly 300,000. It is traversed daily by countless thousands of non-resident automobiles, which take this route between New York City and Long Island points. As a supplement to this section there is a map of this territory, together with a list of the automobile charging stations maintained by the company.

The lighting of automobiles by electricity is discussed in the second section where the following convincing arguments in its favor are found:—

"There is an element of danger ever-present in the operation of a gasoline car. Of course,

it is so carefully guarded against and so well understood that accidents are few, but nevertheless protective measures are the part of wisdom. With electric lights on a gasoline car a portable trouble lamp may be carried, eliminating entirely the use of matches about the machine. The lamps can be used with safety in the presence of inflammable gases. Moreover, the high speed at which these vehicles are operated over roads designed for horse traffic, involves sufficient risk in itself without introducing the further danger of fire from oil or gas lamps, in case of accident. Electric light is safe.

"It is the convenience of electric automobile lighting, however, that appeals to the motorist most strongly. The chauffeur can "light up" without leaving his seat. The lights cannot be blown out. There is no water to freeze. Since there is no excessive heat to cause deterioration of the polished surface, highly efficient silvered reflectors can be used. The tiny filament of the electric lamp can be so accurately adjusted to the focus of the reflector, that a 16-candle-power Mazda lamp in an 8-inch reflector throws fully twice as much light 50 feet ahead as does a 3-4 foot acetylene burner in an ordinary 10-inch headlight.

"Moreover, there is no smoking of reflectors, there is no disagreeable odor, dash and limousine lights are no extra trouble and the average cost per hour for operating a complete electric lighting outfit, using a standard 6-volt storage battery, is from 1-3 to 5-8 the cost of burning two acetylene headlights from a gas tank. When the car is stopped the lights can be extinguished instantly by the pressing of a button. While running over well lighted streets the headlights may be switched off and only the side and tail lights burned. The speedometer and tail lights are connected in series so that while the speedometer light burns, you *know* the tail light is shining. This is an absolute protection against collision from behind."

Under section three, the signal horn, operated by electricity, is taken up, and we find the following:—

"Motoring at night we look to the searchlights for safety, but we depend on the signal horn for protection every minute the car is in motion. Here, again, electricity has developed the highest point of efficiency.

"The warning cry of the electric horn has proved itself infinitely more reliable than any of the other innumerable varieties of danger signal, both in the interests of the automobilist and the pedestrian, for it gives forth a note of insistent command that is answered first and investigated afterwards. It seems to operate like the reflex nerves.

"Its chiefest value to the man in the car lies in its absolute dependability. It is instantaneous and infallible, for as long as the car moves the storage battery must be doing its work, and while there is a spark of life in the battery the voice of the electric horn is ready."

Complete data is also given regarding charging electric vehicles, and

charging the ignition batteries on gasoline cars, special attention being given to private charging outfits for owners' garages.

Taking up the subject of the electrical equipment of the garage the book describes the many applications of heating devices and the uses to which the small motor may be put, such as for polishing brass, cleaning upholstery, etc. The practical commercial vehicle is also discussed, and the many arguments in favor of the electric truck are given.

The booklet closes with a discussion of the small electric pleasure vehicle, which is described as the ideal car for the household, especially for service in the city, where the longest day's run seldom exceeds 40 or 50 miles.

The book, which is printed on good quality of paper, with numerous illustrations, is written in a clear, vivid style and will be found of much interest and value to the owner or prospective purchaser of an automobile. It also may be expected to develop a very considerable business for the New York and Queens Electric Light & Power Company in the charging of small batteries for ignition, lighting or signal purposes, and in the greater use of electric vehicles.

Aggressive House-Wiring Campaign in Omaha

Omaha, Nebraska, has 15,000 houses wired for electric lights, and old homes are being wired by the Omaha Electric Light & Power Company at the rate of 100 a month. Mr. I. B. Zimman, the company's contract agent, reports that within the past few years the lowest number of houses connected has been 938, last year's total being 1257, while this year it is expected that more than 1300 houses will be connected.

The company leaves the actual wiring to the local contractors, who are called in for competitive bids, but to each solicitor obtaining a house-wiring contract a bonus of \$1.50 is given, which it is believed has been the incentive for the unusual house-wiring campaign in Omaha.

A New Departure in the Decorative Lighting of Amusement Parks

By G. A. BARKER

To throw out 7,000 carbon filament sign lamps of a standard type and to replace them by the recently developed 2 1-2 watt metal filament lamps, thereby creating a precedent in amusement park lighting on a large scale, requires the strongest kind of confidence in the

and with better maintenance thereof throughout the period that the average lamp is in service, has been effected, and in addition the greater brilliancy and whiter color of the high efficiency light have actually made the Park seem more strongly illuminated than it was in previous years, and have sensibly increased its general attractiveness. The effect has also been enhanced by the addition of new electric signs and by extensions of the outline



The Lighting of Paragon Park, Nantasket, Mass.

quality of the newer lamps. This step was taken last spring by the management of "Paragon Park," the well-known amusement resort at Nantasket Beach, Mass., and the progressiveness exhibited is none the less noteworthy because experience—now that the summer park season is over—has shown it to have been justified.

A reduction in current consumption from 10 watts to 2 1-2 watts per lamp, with no decrease in initial candle-power

lighting system, which, however, absorb but a fraction of the released load.

The seven-thousand-and-odd sign lamps used in the ornamentation of this amusement resort are apportioned approximately as follows: To the Park's most prominent landmark,—the Tower which rises at its center,—some 4,000 lamps; 2,000 more in the outlining and decorating of the Palm Garden and Pavilion, 400 in the large

"THIRST" sign above the Palm Garden, 400 on the Band Stand and 200 in various other parts of the Park. The several structures just mentioned can all be discerned in the picture.

Local low-potential transformers, having a 10:1 ratio, are used to step down the voltage of the central station mains to that required for the sign lamps, which are designed to consume their rated input, 2 1-2 watts, at a pressure of 11 volts. Current is secured on contract from the Weymouth Electric Light Company. The peak load contributed by the park lighting during the busy season is normally about 275 kilowatts, and this value is maintained for about 4 hours daily, while for 6 hours out of the 24 the park runs at about half of its peak consumption. Thus the sign lighting constitutes but a small portion of the total load,—in fact the ceiling of the Palm Garden alone, studded as it is with nearly 1,000 lamps of the 25-watt, 110 volt type, consumes more current than all of the 7,000 sign lamps put together.

The amusement park at Nantasket Beach, located about eleven miles in a southeasterly direction from Boston, Mass., across the Harbor, has been operated for seven years under the name of "Paragon Park" and has become the most popular place of its kind east of Coney Island,—the total attendance during the season aggregating 800,000 or more. Notwithstanding its present popularity and prosperity it is said to have been, for several years after its incipency, a losing proposition financially. As with every closely-run enterprise, it is the many little items of needless expense, and the many minor economies, that in the long run swing the needle of the business indicator towards loss or towards profit. The remodelling of the sign lighting at Paragon Park is a specific instance of the sort of economies in question.

The evolution of the sign lamp itself has been rapid and has been marked by great improvements in efficiency. For years the two most common types

of lamp for sign lighting were the 2 cp. and 4 cp. carbon filament lamps, consuming about 10 watts and 19.6 watts, at efficiencies of 5 and 4.9 watts per candle, respectively. The first sign lamp with a tungsten filament consumed 5 watts at 1.33 wpc. (old candle) or 1.31 wpc. (International Candle), while the 2.5 watt Mazda lamp (rated at the same efficiency) is a more recent development. The latest type of construction used in these lamps, employing filaments of drawn wire with clamped joints, gives them improved mechanical strength while the fact that they are more than thrice as efficient as the carbon filament lamps gives them an economic advantage over the latter under nearly all conditions in spite of a slightly higher first cost.

The central station that can secure a large summer customer in the shape of a brilliantly lighted amusement park is fortunate indeed, as it will have not only a winter lighting peak but a summer lighting peak, which will reduce the overhead expenses per unit of energy generated. The central station that has such a customer should by all means encourage every new departure that will enable the park to conduct its business with a greater margin of profit, for it is obviously to be desired that the customer should be a permanent one. This broad point of view will ordinarily be taken by a progressive lighting company, when considering the possibility of a temporary slight reduction in load due to the introduction of high efficiency lamps, as in the present instance. In order to pay dividends, amusement enterprises must advertise heavily, and they find that decorative lighting is an indispensable advertising feature.

A New York firm of efficiency engineers issues a little pamphlet entitled "Profit-Chokers," giving some 200 conditions which cut down business profits. If the antithesis of the "profit-choker" is the "profit-booster," it may safely be said that the Paragon Park management has found such a machine.

The Virtue in "Catching the Eye"

How the Merchant Can Create the Magnetic Power that Makes his Window an Always-working Salesman

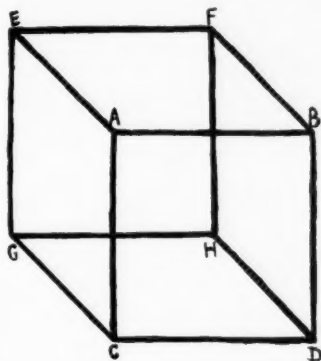
By C. B. LACY

It has often been demonstrated by magicians, gamblers and others, that the hand is quicker than the eye. This is not because a message travels faster from the brain to the fingers than it does from the eye to the brain, but because the eye can see just so much at a time, and no more. Naturally it does not necessarily see the most important thing, but it does see always the most prominent one. This is a fact that should be borne in mind by the merchant when planning his window display. Here the eye must be caught "on the fly," so to speak, and this can only be done with something

and both will be right! It all depends on how you look at it. The eye is a camera which catches only the most vital impressions first; its scope is limited, and this peculiarity of the eye is an important factor to be considered in window display. No one casually walking down the street can notice and observe every window he passes, and no one can see all the contents of a single window at one glance. Therefore, unless there is something in that window that will reach out and catch the eye and unless that window possesses one strong factor of human interest which will hold the eye and summon the attention, people will not be likely to notice the display.

In the shop window, as in everything else, it is the little things that often make the most lasting impression. Several seasons ago, a most successful play was produced in New York. It was well written, with a good plot and interesting situations, and was splendidly played by a clever company, headed by a well-known comedian, and yet the thing that attracted the most attention in the entire show was when the star of the piece rolled a cigarette with one hand!

In the same way people will sometimes stop and look at something in a shop window which the merchant had considered as quite of secondary importance, simply because it happens to catch the eye. In window display, as in any other form of advertising, only kindred impressions should be created together. A display of electric fans in the same window with heating pads would not harmonize. The same train of thought would not embrace both these suggestions. It would only confuse the mind and eye of the observer, so that probably little or no buying interest in either appliance would be aroused.



that will attract everybody's attention, and make them look once, whether they are interested or not.

Hardly any two people see a thing just alike. Half a dozen persons may see an accident, and none of them give the same account of it, and yet they all will honestly believe they are telling the truth. Take the classic illustration of the transparent cube, for instance.

One person looking at it will declare that the front of the cube is the square ABCD, while another will be equally positive that it is the square EFGH,

The fewer things there are in a window, too, the greater will be the interest compelling power of that window. One library lamp, for instance, placed on a table in the center of your window, with a dark background to offset it, will attract ten times more attention than the same window crowded with all sorts and conditions of lamps. The one lamp has a prominence that catches the eye; it stands out, where the window full of lamps will be seen casually, if at all.

That is because the eye receives a definite impression of the one lamp, which it imparts to the brain, while the number of lamps are only seen vaguely. Nero, the Roman emperor, once gave a fete at which were thousands of beautiful slaves. Asking one of his statesmen what he thought of it, he received this reply: "I judge, Lord, that ten thousand maidens make less impression than one." That statesman knew the value of what might be called the "unit system" of display.

Another important factor in window display is color. Walking down Broadway the other night, my eye was attracted by something red in a window I was passing, and before I realized it, I was examining a display of women's hats—something in which I had little interest, and at which I should never have looked except for that bit of color that attracted my attention. The electrical merchant can easily take advantage of the appeal of color in arranging his window displays. A selection of highly polished brass fixtures, for instance, with a background of dark, rich green, will be looked at by hundreds of people who would pass by a display of flatirons or other objects of neutral color with the same "setting." The brightness of the brass catches the eye by the contrast to its surroundings, whereas the irons are simply part of the general scenery, unless shown against a white table cloth, for instance.

It is all a matter of psychology. This sounds complex and forbidding, but after all it is the mind of man we have to deal with in selling goods, and

in manipulating the subtle influences of window display it is well that these mental processes be taken into consideration and harnessed to our needs.

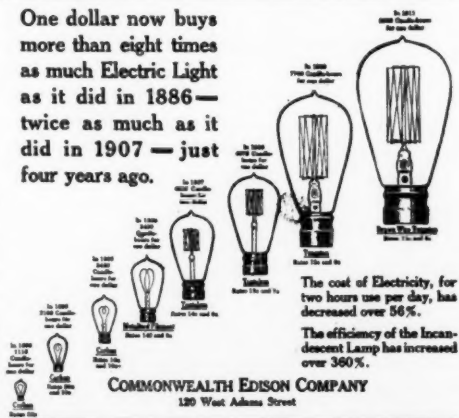
The window that will attract the most attention and be most likely to produce results is the one in which only objects of kindred character are displayed so that there is no indecision in the minds of those who observe and the appeal is concentrated and consistent. The eye must easily embrace the spirit of the display at a glance, and it is in making this quick mental picture vivid and magnetic that the uses of color and contrast are most effective.

Bear these facts in mind the next time you plan a window display, and note the difference in the number of people that stop to look at your display.

A Striking Advertisement

Here is a striking advertisement that the Commonwealth Edison Company, of Chicago, has recently published in the daily papers of that city. While the number of customers in Chicago has increased greatly in the last 25 years, the rate for current has de-

One dollar now buys more than eight times as much Electric Light as it did in 1886—twice as much as it did in 1907—just four years ago.



creased accordingly, while, as the advertisement shows, the efficiency of the incandescent electric lamp has shown an increase in proportion to the decrease in the rates for energy.

Pine Bluff Celebrates Completion of White Way

There were great doings in Pine Bluff, Ark., on September 15th, when that city celebrated the installation of its new "White Way," which is said to be the most complete in the South. A crowd of 30,000 people from all over Southeast Arkansas were attracted to the city by the program given in connection with the opening of the White Way, which consisted of aeroplane flights in the afternoon, and an industrial and floral parade in the evening.

The parade, which consisted of 136 decorated floats and autos, started at 7.30 p. m., when the Mayor threw the switch which turned on the lights of the White Way, and lasted two hours and forty-five minutes. A feature of the parade was an illuminated float

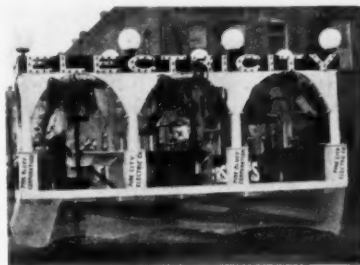


The Pine Bluff Corp. Float Night View

prepared by the Pine Bluff Corporation and the Pine City Electric Company, a leading electrical contracting firm. This float is claimed to be the largest of its kind ever built and lighted by storage batteries. Nine people were on the float demonstrating dif-

ferent kinds of electrical appliances, such as fans, irons, etc. The float was 24 ft. long, 11 ft. wide and 10 ft. high, made of eight colonial columns and arches, all in white.

The new lighting system consists of 150 ornamental posts covering fourteen squares in the three principal



As it Looked by Day

business streets of the city, which has a population of 25,000. The posts are of simple design, mounted with four 16-in. globes on iron pipes, and cost \$24 each to set up complete.

The plan of installing and operating the "White Way" was worked out in an original manner by Byron C. Fowles, General Manager, and Minor Q. Woodward, Manager of New Business Department, of the Pine Bluff Corporation, which had charge of the installation. The merchant pays \$5 per month per pole for one year, at the end of which time the pole becomes his property; after the first year he pays the company \$3 per month per pole for the lighting and upkeep of



The New "White Way" in Pine Bluff, Ark

4 60-watt Mazda lamps, which burn from dusk to eleven on week nights and till midnight on Saturdays, and are controlled from the central station.

In the campaign for the "White Way" the Pine Bluff Corporation had the co-operation of the Board of Trade, and the support of the local press, receiving from two papers 79 front page write-ups and 110 editorials in two weeks.

The Pine Bluff Corporation reports that the publicity received during this campaign has already resulted in much new lighting and power business, both in the residence and business sections, besides greatly enhancing the company's standing in the public opinion.

Decorative Street Lighting in Pasco, Wash.

Local Manager Andrus Credits much to Electrical Progress

Work has been started at Pasco, Wash., on a decorative street lighting system, which will consist of eighty-four three-light cluster posts, and will be in operation some time before the first of the year. This installation is the result of an active campaign carried on by R. J. Andrus, Local Manager of the Pacific Power & Light Company, at Pasco.

An interesting fact in connection with this campaign is that at its beginning Mr. Andrus mailed copies of the Decorative Street Lighting issues of *Electrical Progress* together with the following letter, to all the newspapers, each of the board of directors of the Commercial Club, each councilman, and a number of the leading business men of the town. This is an exceedingly clever letter and was a most efficient introduction for the little magazines. The letter read:—

"Dear Sir:

I am taking the liberty of asking you to devote a few minutes of your time to reading a small illustrated pamphlet which I am today mailing you under separate cover.

If your grocer should take particular interest in informing you that he had just received and cut a new fresh cheese that was so fine that you would really miss a treat if you failed to sample

that cheese, you would thank him for calling your attention to it; provided of course, that you found the cheese extra fine.

That is just the feeling I wish to create when you read this little booklet.

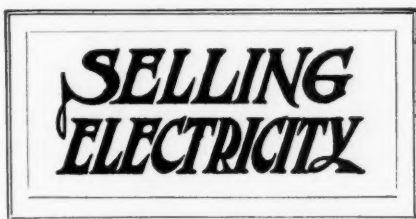
I found the photographs and reading matter in connection with these articles especially interesting to me, and because I found it to be a 'good thing' I could not refrain from 'passing it on' to you.

You will find my personal card enclosed with the booklet, with best regards, I am—"

Mr. Andrus says that the articles in *Electrical Progress* were the means of arousing wide public interest in decorative street lighting, thus being in great part responsible for the installation now under way.

It is the intention of the lighting company at Pasco to make the night upon which the new system is lighted for the first time, a public celebration with speeches, music and gala illumination. The city has recently decided to install a slogan sign reading "Keep Your Eye on Pasco," and the Pacific Power and Light Company has agreed to furnish free the current for its operation.

Hallowe'en Advertising. This Ad. appeared in Providence, R. I.



NOVEMBER, 1911

RESALE PRICES

The most significant part of the decree of Judge Killits in the matter of the so-called "lamp trust" is the comment thereon attributed to the Attorney General. Mr. Wickersham is credited by the daily press as saying:

"By this decree all the defendants are severally enjoined from entering into or performing any agreements or arrangements of any nature by which the prices of incandescent electric lamps of any type or design, whether patented or unpatented, are to be sold either at wholesale or retail."

Since the lamp men have accepted the decree, there will be no appeal from this ruling, but it is a bit interesting to consider just how legal the Government's action is and how far it intends to go in applying the principle as stated.

For example, is Mr. Gillette to be restrained from fixing his resale prices on patented safety razors?—are we to get Ingersoll dollar watches for 98 cents?—will Hugh Chalmers be able to hold his agents in line or will they forthwith offer Chalmers cars at cut prices?

And if the Government's busy attorney is right, who is the loser?—who the gainer?

It is entirely probable that Mr. Wickersham will begin to hear a loud scream from the country at large if the

matter of fixing resale prices is carried out as per his over-prompt comment on the lamp decision. There is hardly a manufacturer in America who does not attempt to fix a resale price schedule, not for his own profit, but to give stability to trade. There is hardly a merchant of standing anywhere who does not reap the major portion of his annual gain from the profits on such price-protected goods.

The humor of the situation is, that while the Attorney General takes great credit to himself for smashing the "trust," he is in fact only precipitating a price war among distributors of patented articles. The manufacturers, by virtue of their patents and patent licenses, can ask and get practically any price they please—all the traffic will bear, in fact. They, therefore, are untouched by the decree except as it shall temporarily disturb their sales methods and require re-organization of office and book-keeping systems. But the distributors—the jobbers, contractors, supply dealers—are thrown into a condition of panic, for price-slashing will be inevitable and the profits from distributing incandescent lamps will be practically wiped out. And if the principle is applied to all business, then retailing will become the least profitable of all pursuits and will inevitably fall into the hands of a few organizations which will ultimately eliminate the middleman as he now exists.

It is a curious situation. One can study it like a chess problem and the ultimate answer is—what? One thing is certain. The so-called "trust" is today just where it was before. The men at whom the decree appears to have been aimed are unharmed: the dealers, whom a paternal government

is supposed to coddle, are in great jeopardy; and the public will save as much as a cent or two each per annum on lamps. Maybe.

"IN TIME OF PEACE——"

A few weeks ago the chairman of the street lighting committee in South Framingham, Mass., wrote a letter to the local papers, in which he made various sweeping statements as to the comparative efficiency of municipal and private plants. He claimed that "in every department, municipal plants are better managed than central stations operated by private corporations," and that municipal plants show greater increase in business, a safer margin of depreciation, more reasonable rates and various other encouraging virtues. This surprising letter was published and read throughout the city, and though the statements were quite unsupported by any citation of facts or figures, in many quarters they were undoubtedly received with full credit and believed. The seed of an untruth has been allowed to take root and who can foresee how far its influence will spread?

Naturally, the central station can never expect to be entirely free from such attacks nor is it reasonable to suppose that the public will ever get into the habit of applying the acid test to every such official statement. Therefore, the industry may expect to be subjected to the influence of such partisan misrepresentation whenever the spirit moves some champion of municipal ownership to break into the public prints.

True, such allegations are easily refuted by simple recourse to history, but the danger lies in the wide publicity which naturally is open to the

fire-eating politician and denied to the defendant, not because the reply is not published, but simply because the spectacular is more attractive to the public than the calm, logical statement of facts. The accusation is read and remembered. The rebuttal is passed over as dry and uninteresting.

It is the original "news item" that the papers are glad to print and we are all glad to read. Why not make it the instrument for telling the other side of the story? If the *New York Herald* will publish a ten inch article on a prominent page telling about the success of a little municipal plant in Morrisville, Vt., it will as willingly print other data from prosperous central stations. So will every other paper. It is all news.

Is it not a mistake for the central station to keep silent on the subject of municipal ownership? There are facts, and moving ones, a-plenty. There are innumerable examples ripe for citation. There are many opportunities to place this data before the public, to plant and nourish a common conviction that the municipal ownership idea is illogical and costly. The well-founded principle—In time of peace prepare for war—seems to apply here with particular reason in view of the wide spread developments in Canada. The rapid spread of the "Hydro-Electric" system among the cities in Ontario is being watched with interest in this country and will have its effect.

Would it not be the part of wisdom for our central stations to set about the raising of a few barricades? The public is interested, and it is certainly important that they learn the truth, so that they may be proof against such poisoned shafts as the recent South Framingham effusion.

ELECTRICAL MERCHANDISE

**A Department of Suggestions for Men Who Sell
Current Consuming Appliances and Accessories**

An enormous popular market for electric appliances and fittings stands awaiting the contractors, the supply dealers and the central stations who will study and utilize the experience of the successful merchants in other fields. It is the aim of this department to suggest and apply such proven methods for the upbuilding of this retail business in electrical merchandise—

not by indefinite theory or destructive criticism but by helpful, practical, constructive ideas for displaying and selling in the Electric Store. Contributions and communications of interest to this department will be gladly received. Address, Manager of Merchandise Department, SELLING ELECTRICITY, No. 17 Madison Avenue, New York City, N. Y. Telephone: Madison Square 7629

Tact—As the Statler Sees It

How It Applies to the Electrical Merchant—A Third Tonic Talk

What is tact? Ask the average person, and he will answer something like this: "Why, it means being diplomatic, in a way; doing or saying the right thing, so as not to hurt people's feelings. In other words, telling a small fib, where the truth might be unpleasant." All of which is very true, yet tact also means something more than that, especially for the retail merchant. It means politeness, consideration, and thoughtful, efficient service.

Lack of tact on the part of an employee of the Hotel Statler at Buffalo, N. Y., once involved the management of that hostelry in a rather expensive argument. As a result of this, the proprietor wrote out a set of rules which he called the Statler Service Code. While intended primarily for the employees of the hotel, they contain much that is of value to people in every walk of life.

Let us take up some of them and see how they apply to the retail dealer, especially the electrical merchant. Here is the first:

"The Hotel Statler is operated primarily for the benefit and convenience of its guests. Without guests there could be no Hotel Statler. So then it behooves every man and woman employed

here to remember this always, and to treat all guests with courtesy and careful consideration."

The central station is, or should be, operated primarily for the benefit and convenience of its customers, as without them there could be no central station. For which reason every employee of the central station should treat the company's customers with the same consideration they would expect themselves from a first class hotel, and this consideration is only a question of using a little tact. It's the same with the contractor.

Again: "New customers are just as valuable to us as old customers—remember that: for each new customer is an old customer in the making."

Plenty of food for thought there, for the merchant and his clerks, isn't there? Of course, it's right to hold on to old customers, but there's no use in using all your grappling irons there, so that you have none left for the new trade. If you've ever gone into a strange store to buy a suit of clothes and had the salesman leave you to go sell a collar to another man, who happened to be a regular customer, you know how it feels. The salesman's lack of tact rubs you the

wrong way, and you're more than apt to walk out without buying.

Here's another one from the Statler:

"Snap judgments of men are oftentimes faulty. A man may wear a red necktie, a green vest and tan shoes and still be a gentleman."

If there's any one place more than another where real tact is needed, it is in sizing up a stranger. The merchant can't afford to judge anybody by appearances. Two men go into a bank; one has on rawhide boots and an old slouch hat, while the other sports "patent leathers" and a "stove pipe." As often as not, the man with the boots goes in to deposit a few thousand dollars he made on his last load of cattle, while Patent Leathers goes in to try to get an extension on his note, already long overdue.

This is what the Statler Code has to say about complaints:

"At rare intervals some perverse member of our force disagrees with a guest as to the rightness of this or that. He maintains that the meat is well done—when the guest says it isn't. Or that *this* sauce was ordered, when the guest says the other one. Or that the boy *did* go up to the room. Or that no party called. Either may be right. But these are permanent instructions: No employee of this hotel is allowed the privilege of arguing any point with a guest."

"A waiter who can say 'Pell Mell' when the guest says 'Pell Mell,' and 'Paul Maul' when the guest says 'Paul Maul,' can make the guest think himself right—and make us think the waiter is all right. And just here, take heed, that in all minor discussions between Statler employees and Statler guests, the employee is dead wrong—from the guest's standpoint and from ours."

You couldn't preach the gospel of tact much stronger than that, could you? Always remember that though a person may be your mental, physical

and social inferior, when he comes into your store, you are, for the time being, his employee. You are working for him, to give him satisfaction in his purchase, and for that reason he is entitled to the same respect that you demand from your clerks. You can lose a customer through lack of tact in the way you handle him, just as a clerk can get himself fired through rubbing the Boss the wrong way. But it doesn't pay in either case.

That touch about the "Pall Mall" cigarettes is a good one, too. One of the first rules for its clerks laid down by a corporation operating a chain of cigar stores throughout the country is this: "Never correct a customer. Many persons mispronounce names, especially those of imported cigars: If you have to repeat the name, always pronounce it as the customer did." That is tact, pure and simple.

There is perhaps no business of which the general public has less knowledge than that of the electrical contractor, or the central station. Nine persons out of ten don't know the difference between a transformer and an insulator, and they think an ampere is some kind of battery. On this account the electrical merchant probably hears more "bulls" made than any other sort of merchant, and for this reason he should be especially careful and especially *tactful* in the way he takes them. Let him remember, first of all, that he is running an electrical store, not a school, and when a man comes in and asks for a *Madza* lamp, it isn't necessary to tell him he means Mazda, because all he wants is the lamp, no matter what its name may be.

Here's a good point to keep in mind: Old General Information is pretty popular when he's a regular, but nobody likes him much when he's a *volunteer*. If you see a new motor you don't understand, and you ask your friend Jones to explain it to you, all well and good; but if you're looking at the motor and Jones comes up and *volunteers* a lot of information about the general theory and application of

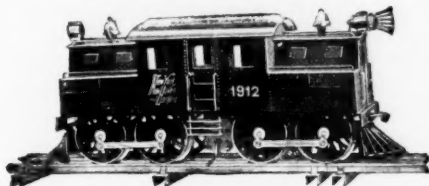
electric motors, does it arouse much enthusiasm? Jones rubs you the wrong way by taking your ignorance for granted—why? Because he has no tact, or he would take it for granted that you knew as much about the motor as he did. He would assume that you were wise until you had been proven foolish.

Trying to conduct a retail business without tact is like driving a wagon without axle grease; it goes, but there's an awful lot of friction pulling back all the time. Here's the whole story in one breath: Tact means rubbing folk the right way; rubbing folk the right way means less friction, and less friction means a smoother running business, and a better business. There you are! Try it out, and see if it doesn't work.

The Profit in Electrical Toys

Two Logical Full Grown Reasons why the Electrical Merchant should Sell them at Christmas Time

"But why should we sell toys?" says the electrical merchant. "There's not any more profit in them than in other merchandise, there's practically no market for them after Christmas and from the central station standpoint

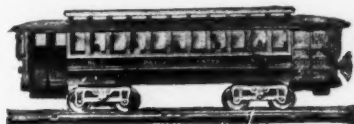


they're almost worthless, they consume so little current."

True, but that isn't the idea; the electrical dealer should sell motor-driven toys for the same reason that the druggist sells postage stamps. Not so much for the profit, for in his case there is none; but because people they will attract into the store who will probably buy other things on which there is a profit.

Father comes in, attracted by a window display of an electric train, to buy some such toy for the small

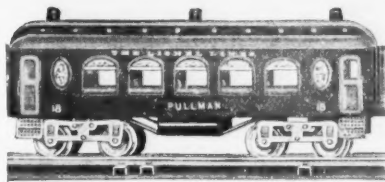
son, and before he gets out, he may have bought a portable, or a chafing dish. Then, too, electric holiday novelties, such as miniature sets for decorating the Christmas tree, electrically lighted holly wreaths and



floral pieces make a special appeal and often lead to larger sales.

Here's another argument in favor of selling electrical toys: they awaken a lively interest in the minds of Young America in electricity and electrical things, an interest that will grow as the children become older, and will give them a familiarity with the uses of electricity that will make them realize how indispensable they are in the modern home. Electricity is a fascinating subject to the novice.

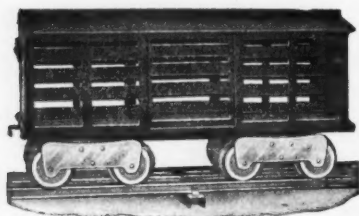
There are a greater variety of electrical toys obtainable this season than ever before, and the central stations, contractors and dealers have a larger supply to draw from. Toy electric locomotives, electric trains, with baggage, Pullman and observation cars, complete; electric stationary engines; electric magic lanterns, with moving picture attachment; toy transformers, and combination alternating-direct current motors—these are among the toys that are most popular with the young



people, and the old people, too, for that matter.

The electric locomotives are made after the model of those in use on the railroads in the East, and are built of brass and steel, finished in colors, with

the exposed metal parts highly nicked. There is an electric headlight which can be turned off or on by screwing or unscrewing the lamp half a turn. The electric trains are fitted with lamps arranged in series, so that, in a three-car train all three lamps may be put in one car, two in one and the



other in a second car; or one in each car. These trains are supplied with several feet of straight and circular track, switches, etc., so that a railway system can be reproduced in miniature.

The toy electric stationary engines are operated on the make and break system and have driving wheels that give them unusual strength. There is also another toy motor that is easily taken apart and reassembled. This toy is especially valuable in teaching the youngsters the construction of a motor and just what it is that makes a motor go.

Then there is the toy wireless outfit. Everyone now-a-days is interested in wireless telegraphy and wants to know more about it. Such an outfit will prove of interest to the grown-ups as well as to the children.

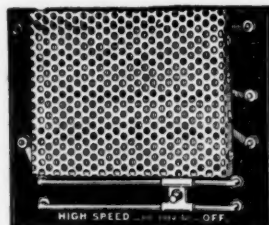
The electric magic lantern and moving picture machine combined is another toy that will appeal to father and mother as much as it will to the youngsters. These are made with a dynamo which produces the light for the machine, and can be made the source of many an evening's entertainment.

Also in the line of holiday goods may be mentioned the electric Christmas decorations, such as electric lighted holly wreaths, poinsettia plants (which are especially popular at the holiday season) and pendant clusters, made in

the shape of fruit and lighted by electricity. Then there are the decorative outfits for lighting the Christmas tree, taking the place of the candles, with their ever-present danger from fire, and dripping grease.

One firm, making a specialty of electric window displays, is showing a window piece representing a mountain scene with tunnels and ravines through which a miniature electric train climbs in a very realistic manner. This display makes a splendid advertising medium for the central station, contractor or supply dealer, as it attracts to the window people who, interested in the display, will usually come inside to learn more about it.

By the time this magazine reaches its readers the holiday shopping season will be almost upon us, and the merchants in other lines will be getting ready their Christmas displays. Many of the larger stores have similar goods that are sold during the holiday shop-



The Toy Transformer

ping season and at practically no other time, but the demand for these goods is great enough to warrant their being carried just for that season. For while the profit may not be great, they bring many people into the store who would probably never come otherwise.

That is one of the best answers to the question: Why should the central station, contractor and supply dealer sell electrical toys at Christmas time? They attract customers, who, before they leave, buy fixtures or appliances to many times the value of the toys. Also, they educate the rising generation.

There's not much time to lose. What are *you* going to do about it this year?

The Sectional Fixture

Why it Should be Welcomed by the Householder

These two pictures are interesting as showing clearly the simplicity of the new TTC Tungstolier. In the first view, the fixture arm is being removed; in the second another type of arm is being substituted. This process consists merely in unscrewing a locknut with thumb and forefinger and drawing out the arm, the connection being



made by a spring clip contact that engages and releases automatically. The new arm is simply shoved in and the locknut screwed in as before. If the two light fixture is to be changed to a four light unit, two more of the little round caps are removed from the fixture body and new arms take their place, the binding nuts screwing in where the caps come out.

To the electrical merchant—the contractor or the central station—this changeable fixture opens up big possibilities, where it is necessary in equipping a small dwelling, for instance, to keep down the cost to the very lowest point. Instead of permanently installing inexpensive fixtures in important rooms, which usually dooms that home for a number of years, to inefficient illumination and unsatisfying fixtures, a two light TTC Tungstolier can be put in with arms of the least expensive type. Later on these arms may either be taken out and a more ornate style substituted, or one or two arms may be added all without removing the fixture itself from the

wall, or interfering with the lighting of the room. When ordinary fixtures are once on the wall they usually stay there, as everybody knows. Any improvement means either sending the fixture to a factory to be remodelled or sacrificing it entirely, for second-hand fixtures bring small prices.

Here is a very appealing opportunity for the man who at the start must economize on his fixtures, but does not want to buy "cheap" equipment that will be a permanent "eye-sore." The TTC line provides a wide variety of designs and a corresponding scale of prices and any fixture can be remodelled in a few minutes without being taken from the wall.

As far as the public is concerned, this is the most interesting part of the new sectional fixture scheme, and this is the point to "play up." It will not only bring purchasers for TTC Tungstoliers, but will be a strong influence against the prevailing assumption that electric lighting equipment is really a "fixture" in the house, like the front stairs and cannot be changed. Perhaps the largest logical market for



fixtures today is in the homes where old style equipment is in use, and the changeable feature of this new type will do much to combat that misconception.

Federal Sign System Opens New Factory

Inquiry among the manufacturers of electric advertising signs reveals the fact that the past year has shown a



FEDERAL

A New One

The brilliant vine grows until it culminates in a fan like blaze that makes you remember the Athens restaurant.

This is an original Federal design. Originality is not everything. Attractiveness pleases more than oddity. Right construction insures brilliancy and long service. Federal Signs have made electric signs a permanent source of revenue for central stations.

It's a Federal

Let us design your signs.

Sketches and estimate free on request.

Federal Sign System (Electric)

501 Home Insurance Building
CHICAGO

BRANCHES IN

New York	Philadelphia, Pa.	Cincinnati, O.
Lexington, Ky.	Pittsburgh, Pa.	Columbus, O.
Louisville, Ky.	St. Louis, Mo.	Detroit, Mich.
New Orleans, La.	Baltimore, Md.	Harrisburg, Pa.
Oklahoma City, Okla.	Buffalo, N. Y.	Kansas City, Mo.

In writing to advertisers, mention "Selling Electricity"

wonderful advance in this industry, and that the interest in such mediums of publicity is at present greater than ever before. Merchants throughout the country are ordering electric signs for the coming holiday "shopfest," and indications point to a record business in the coming year.

Many of the larger sign companies have already begun making preparations for the future by enlarging and improving their equipment and quarters. The Federal Sign System (Electric) is opening a new factory at 511 West 56th Street, New York City, which will contain about 15,000 square feet of floor space, and will be devoted almost exclusively to the manufacture of large display signs. The present factory at 229 West 42nd Street will be operated as in the past, in the manufacture of sectional letter signs.

The Man Behind the Xmas Goods

*How the National Advertiser Helps the
Retail Merchant*

What is it that makes Spearmint Chewing Gum, Uneeda Biscuits or Ivory Soap easy to sell? It is advertising; abundant, continuous and wide-spread. Of course, these goods have merit, but so have many other products that don't sell so easily because they aren't advertised as extensively. No matter how good an article is, the more it is advertised the more it is sold, and the easier it is to sell.

Pick up the current issue of the *Saturday Evening Post*, *Collier's Weekly*, or nearly any other national advertising medium, and there you will find interesting talks about electric fans, motors, toasters, heaters and many other household appliances displayed with pictures of these devices in anything from a quarter page to a two page spread. This campaign of wide-spread publicity, while comparatively recent, has been no less thorough, and as a result of the efforts of such firms as the General Electric Company, the American Electric Heater Company, Robbins & Meyers, the Westinghouse Electric & Manufactur-

ing Company, the Pacific Electric Heating Company, the Bryant Electric Company and the numerous manufacturers of vacuum cleaners and washing machines, there is scarcely a family in the country today—save only among the illiterate—that hasn't at least a reading acquaintance with electric household appliances. This practically places such articles in the same class with Spearmint Gum, Ivory Soap and the other nationally advertised products, and greatly reduces the effort required to sell them.

Consider what this means to the central station, contractor or electrical dealer; they are no longer forced to sell something that is practically unknown, and for which they must create a demand before a sale can be made. Here the public has already been educated and it only remains for the retail dealer to display his goods properly and make the seasonable sales suggestions as to their use and desirability.

Along about this time of the year central stations, contractors and electrical dealers begin looking around for goods to attract the holiday trade, things that are sold throughout the year, but are particularly appropriate for Christmas. In spite of strikes, wars and reciprocity, this promises to be as prosperous a Christmas as we have had for some time. Everybody has more or less money, and in spite of the well-known "cost of living," they are going to spend a good part of it for presents, just as they always do. Is there any reason why the electrical merchant shouldn't get his share?

It can be said without extravagance that for the man who sells electric current consuming devices and accessories, this approaching Christmas season offers greater opportunities than have ever been possible before. Never before has there been such a continuous and consistent flood of publicity pouring out over the country as we have seen this past year. Never before have the people been so familiar with electrical devices and as actively interested. Never in past years have these devices been so many and so

"BANNER"

The Lamp That is Easy To Sell

People often try other lamps and then buy BANNERS. But they never try BANNER LAMPS first and then buy others, for BANNER LAMPS always make good.

Here is the recipe for BANNER LAMPS. Honest rating, plus durability, plus efficiency, plus longevity. And in addition to this, the buyer gets BANNER SERVICE—which is the best service possible.

That's why BANNER LAMPS are found on the shelves of dealers throughout the land. The electrical merchant knows that whenever he sells a BANNER he will secure a satisfied customer.

BANNER LAMPS will always do what is claimed for them, and a little more. They are absolutely dependable.

Banner Electric Company
Youngstown, Ohio

appealing. Yet last Christmas saw these electric household appliances firmly established in the Christmas market.

Let the electrical merchant take the national advertising into serious consideration. Millions of dollars have been spent with the sole purpose of arousing a popular demand for these goods, and this demand will be satisfied mainly through the central station and the contractor. This money has been expended as much for one town as for another, as much in the interests of one electrical merchant as another. Any man who fails to make the most of the coming Christmas harvest is simply refusing to accept the benefits which have been purchased and paid for in his behalf by the man behind the national advertising.

A Billiard Sign that Works

Nearly every man who is able to hold a cue plays pool or billiards, or has played them at some time in his



life. In spite of the vast army of baseball "fans" in this country, there are a lot of men who don't care a rap whether the "Giants" won the pennant or not and some who don't even know who the "Giants" are. Also there are many men who might answer to that vague term, "man about town," who have never touched a playing card, and don't know pinochle

from ping pong. But few and far between are the men who haven't at some time tried a combination on the four ball for the side pocket, or a three-cushion carom off the red. There is something about these games, with their combination of skill, science and exercise, that makes their appeal almost universal.

For this reason the sign shown in the accompanying illustration is of especial interest, and one that would attract attention in any city in the country. It is made by the Yoerger-Butterworth Sign Company, of Columbus, O., and is operated by a flasher as follows: First the table is shown with the balls racked in a pyramid at one end and the cue ball at the other. Then the cue ball shoots to the pyramid, "breaking" the balls, which scatter about the table, rebounding from the cushions in a very realistic manner.

This is a sign that not only attracts attention, but holds it; it's a sign that people will stop and watch. Jones and Smith, out for a walk, may pass half a dozen ordinary billiard room signs without noticing them, but when they see a sign like this they stop to watch its operation, and after a few minutes Jones will say, "Ever play pool?" And Smith will say, "I used to. Haven't played in a long time, but I don't suppose I'd have any trouble beating you, though." Jones, of course, can't see it that way, and in they go to settle it.

There's an element of human interest in a sign like this that makes it worthy of a place in every town large enough to boast of a "pool and billiard parlor." It isn't just a sign that the prospect may or may not be interested in. It is an opportunity to set the whole town noticing and commenting. That means advertising; that means business.

The long evenings of winter make a sign more valuable than ever. Here is a piece of merchandise that can be sold in almost every city in the country if the merchant will "go to it." And the profit waits on the sale.

"American" Electric Ironing



Here is the youngest electric iron on the market. It is made by the oldest manufacturers of electric heating devices. This new iron is known as

"American Beauty"

weight is 6½ pounds—therefore suitable for all round household or laundry use.

It is all that the name implies. Finished entirely in polished nickel and of attractive design it first pleases the eye.

It is simple in construction—can be entirely taken apart or assembled with no tools but a wrench.

Efficiency and satisfaction to the user it has—beyond any iron yet made.

Guarantee—So durable and strong is it that it is guaranteed for three years.

Learn more about it by ordering a sample—at least. Knowledge of it means you will want it for your customers.

American Electrical Heater Co.

1351 Woodward Ave.

Detroit, U. S. A.

Oldest and largest exclusive makers.



WHY *the* MANUFACTURER



The Manufacturer knows what efficiency is worth to him in his factory. He wants it before anything else.

Monarch Lamps stand for the highest efficiency in lighting. They are carefully selected and honestly rated, and they are strong and durable. That's why the manufacturer buys them.

When you sell a Monarch Lamp you sell a lamp that will do its work and pay its profit in efficiency, and you sell a lamp that is backed by the Monarch Service, which means prompt deliveries and absolute dependability.

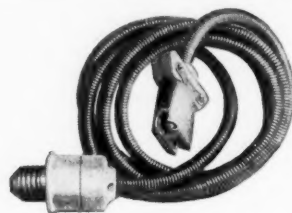
Fairbanks, Morse & Company
(Incorporated)
Chicago, Ill.

BRANCHES IN ALL PRINCIPAL CITIES

"Stealing the Other Fellow's Thunder"

How Talking Points that Make a Merchant Buy will Help Him Sell

Taking another fellow's ideas and using them for your own, isn't considered just the proper thing to do. But when it comes to ideas supplied by a manufacturer to help the dealer sell



his goods, it's different. The man who furnishes the ideas is getting full credit in the profit from the business they bring. Here is the only actual and legitimate "something for nothing" that the average retailer can enjoy—and nine times out of ten he never takes advantage of it.

A salesman from the manufacturer comes around to see him with a certain article for sale. The merchant isn't very keen about buying, so the salesman puts forth his best efforts, he brings out his strongest talking points, his most convincing arguments, and he finally lands an order. In a week or so the goods are on the merchant's shelves and his position towards them is altered. He is no longer the customer, he is the salesman, and with even a harder problem confronting him than had the man from the factory.

Now, here's the point: he has heard all the merits and advantages of the article in question explained by a man who had made a study of it, and knew his business; this has been supplemented by carefully thought out reading matter sent by the manufacturer, and yet in very few cases does the retailer make full use of those talking points in making a sale!

He won't "steal the other fellow's thunder," not because he has any scruples, for if he thought of it he would

know that the manufacturer would rejoice to have him use it, but that's just the point—he doesn't think! He doesn't stop to realize that the manufacturer not only sells him the goods, but is anxious to do all he can to help him re-sell them.

Every now and then some article is put on the market that has so many good talking points that it really almost speaks for itself. To this class belongs the Acme Electric Sad Iron, made by the Acme Electric Heater Company, of Detroit, Mich. Let us suppose that you, the man who's reading this, are an electrical contractor or a central station man, and that you are trying to make use of all the thunder the manufacturer has given you to help sell these irons—what would you say to the customer?

First you would dwell on the simplicity of the iron; it is made in but four parts, handle, top, heating element and base. There are no screws, nuts, washers, fragile insulators or loose parts. No tool is required in replacing an element, which comes complete with terminals attached, ready to slip in.



Then you would talk of its durability, how each of the four parts is practically indestructible, with no small parts to give trouble; how the terminals are not exposed, but are set down in a steel well, so that they cannot get bent or broken or work loose. You would speak of the cord, too; how it is covered with a patented armor, which means not only safety for the user, but also

THE IRON WITH THE "Talking Points"



The Acme Iron is easy to sell because anybody can see and appreciate its advantages.

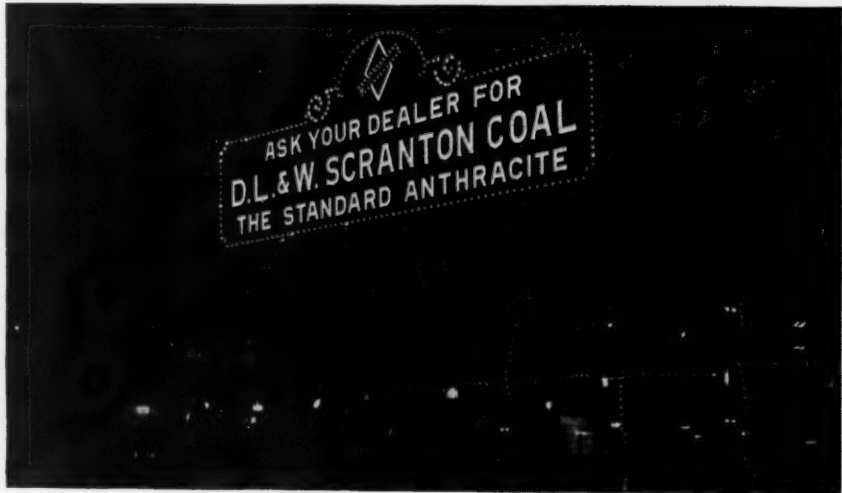
The Acme Iron is simple and get-at-able. You can take it apart in a jiffy and prove to the doubting customer that, if repairs are ever required, a ten-year-old child can fix it.

The Acme is practical. It is quick to heat and heats evenly. It has a heavy base, a hot nose, large heat storage, a cool top, protected terminals and steel clad attachment plug. It does heavier work than any other six-pound iron and doesn't burn out, wear out or get out of order.

The Central Station or Dealer who is tired of having irons come back for repairs will save money and make money by giving the Acme Iron a test.

Acme
ELECTRIC HEATER CO.
DETROIT, MICH.

New York Office, 50 Church, St., Manhattan



45 x 13 FEET CONTAINS 750 LAMPS

MILWAUKEE-WESTERN FUEL CO.

MILWAUKEE, WIS.



EH

GENERAL OFFICE:
14 GRAND AVE.

ALEX B. UHRIG.

Vice President.

March 4, 1911.

The A. & W. Electric Sign Co.,

Cleveland, Ohio

Dear Sirs,

We are much pleased with the large electric sign which you erected for us on our office building.

You have been very successful in arriving at the proper proportions of the different parts of the design and its symmetrical appearance is most pleasing.

The suggestions of your courteous and obliging representatives were of great assistance to us in deciding both on the text and the general plan of the sign.

Very truly yours,

Alex B. Uhrig.
Vice Pres.

does away with the time wasted in untying the Gordian knot into which the average cord manages to tie itself.

There are other talking points besides these, but by the time you've used half of what you've just read, the chances are about ten to one that you will have made a sale for the Acme Iron retails for four dollars, and extra heating elements can be secured for seventy-five cents. And you have made that sale easily because you have used the thunder which the Acme Company has furnished you. You have talked facts, which is just what the citizen of ordinary intelligence is interested in.

In selling goods, don't hesitate to "steal the other fellow's thunder." That's what it's there for.

POSITIONS OR MEN WANTED

The rate for "Positions or Men Wanted" advertisements of forty words or less is one dollar an insertion; additional words, one cent each; payable in advance. Remittances and copy should reach this office not later than the 15th of each month for the next succeeding issue.

Replies may be sent in care of Selling Electricity, 17 Madison Avenue, New York City.

WANTED—Contract Agent or Assistant to Sales Manager for a Gas & Electric Company in a city of 27,000 inhabitants. State age, experience and salary expected. Address X.Y.Z., Care of Selling Electricity, 17 Madison Ave., New York City.

WANTED—By a combination gas and electric plant, in the southern states, two salesmen. Must have had previous experience and be well recommended. Position permanent with good salary. South—care Selling Electricity, 17 Madison Avenue, New York City.

For Sale at Low Prices

Metal Electric Signs reading

**Vaudeville, Restaurant, Dry Goods,
Chop Suey, Lunch, Cafe,
Furniture and others**

Write for specifications and prices

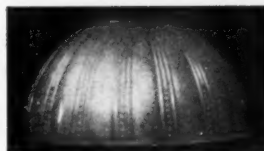
**HALLER SIGN WORKS (INC.)
704 South Clinton Street
CHICAGO**

Haskins Electrical Glass Products

R
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R
S



Efficiency
Without Specks



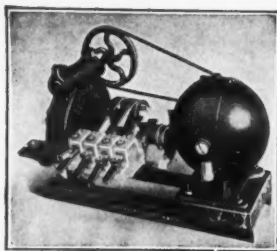
If it is
Electric Glass
We Make It

The Haskins Glass Co.
Wheeling, West Virginia

BRANCHES

New York
St. Louis
Boston
Atlanta

Chicago
Los Angeles
Philadelphia
Montreal



3 Switch Single Pole

Largest Mfg. Electric Sign
Specialties in the world.

Pacific Coast Office, Room 602, 1208 Broadway, Oakland, Cal.

CENTRAL STATIONS

See That Your Customers Get

New York FLASHERS

Every Contact Equipped With A **KILARK PICUP BLOCK**

The Only Complete Ball Bearing FLASHERS

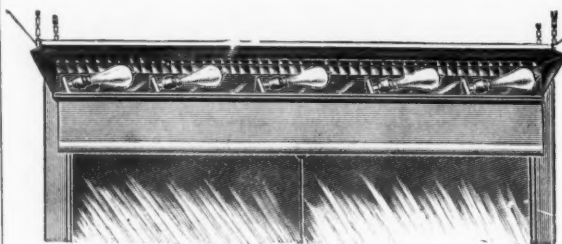
No Oiling Required—Constant Attention Unnecessary.

Every Effect Produced by One Type

BETTS & BETTS

304 West 53rd St., New York, U. S. A.

178 Devonshire St., Boston, Mass.



One of Our Specialties

Window and Show-Case Reflectors

Easy to install with any lamp
on any Window or Show-case.

Something new in Brilliant
Window Effects for all purposes.

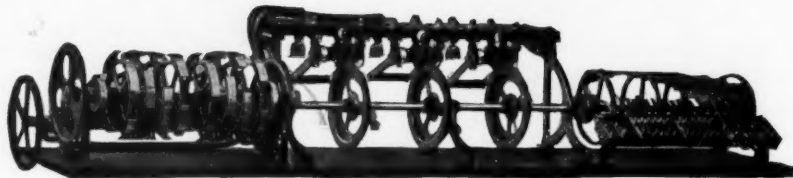
Write us your Requirements.

Weeks Reflector Co.

217 William St., New York

Fireworks, Fountain, Soda Water, Running Border, Water Falls,
Lighting, Spelling and all the Spectacular Effects are produced by

Reco Flashers



Made in nine distinct types. Adjustable switches, speed adjustment, self oiling gears, roller bearings, and all of the latest improvements.

Strong and substantial, trouble-proof, minimum of attention.

See our late bulletin giving suggestions for signs

Reynolds Electric Flasher Mfg. Co.

Largest Manufacturers of Flashers in the World

Head Office and Factory, 617-631 W. Jackson Blvd., Chicago

1123 Broadway, New York

In writing to advertisers, mention "Selling Electricity"



COLOR CAPS.



Patented 7-11-05



Style A

Don't Use Expensive
Colored Lamps

Dipped Lamps Won't Last

STYLE "A" USED FOR

ELECTRIC SIGNS

Every Colored Effect Produced
By Our Special Method



Style B

They Don't "Kill" the Light

BUT INTENSIFY THE DESIGNS BY REFLECTION

Style "B." Used for special decorations, show windows, stage lighting, streamers, etc.
Also signs where background is not colored.

Snaps on lamp like Style "A"—no metal holders necessary.

IMPORTANT—Specify which style.

BETTS & BETTS New York, U. S. A.

OUTDOOR ADVERTISING EVERYWHERE

The O.J.Gude Co., N.Y.

Originators of Spectacular Electric Sign Advertising, and of the
"Great White Way", New York City

Owners of Electric Moving Sign U. S. Patent No. 648,677

In writing to advertisers, mention "Selling Electricity"



This is a sample of

"IRIS"

the most beautiful glass made in America. The exquisite decoration is **in** the glass, not **on** it. The designs are all informal; they lack the cold symmetry which marks the ordinary machine-decorated product. The color-harmony characteristic of "IRIS" is as effective when the shades are cold as when they are aglow with light, while the shimmering iridescence gives a richness not found in any other American product. ::::::::::

The Fostoria "IRIS" Catalog is Filled With Profit Hints

Plenty of people use electric light because it is *better*—not because it is cheaper—than other light.

These people want artistic tone in their lighting; they are willing, if necessary, to sacrifice efficiency to effect. The most artistic lighting effects are secured with

"IRIS"

The new Fostoria catalog will aid you in your campaign for *better* residence business.

You should have this catalog.

**FOSTORIA
GLASS SPECIALTY
COMPANY**
FOSTORIA, OHIO

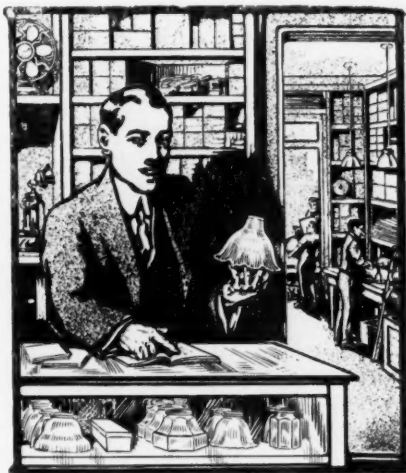
Holophane and the Contractor

The success of Holophane has been due to two things—Holophane itself and the Illuminating Engineering service which we supply. As the public has come to know more about efficient and economical illumination, Holophane Reflectors and Holophane Engineering service have won greater prestige than that enjoyed, probably, by all other manufacturers combined. It is the well-balanced combination of high class product backed by the most intelligent and constructive service that has made Holophane what it is today.

The same prosperous opportunity awaits the Electrical Contractor who will energetically utilize this same combination in his own local field. The Holophane products and the Holophane Engineering service—all we know about illumination and how to sell it—is at every Contractor's disposal. He can build up his business just as we have built up ours, only he will *start* with all the benefit of our long experience and with a complete system of illumination ready-made for instant use.

"Building a Business on Service" is a new Holophane "instruction sheet" just out,

which tells how the Contractor can make Holophane *his* business, how he can build up his own reputation and create his own market in the field of illumination, which will make this the most profitable branch of his work.



The new instruction sheet is written in plain United States English, with the facts and figures. It is full of pertinent suggestions to the Contractor, which appeals to his good business common sense. It isn't a mere advertisement but a straight proposition that we would like to talk over with each Contractor personally, if we could call today and sit in his guest chair. It tells him in heart-to-heart fashion just how we have built up our own business, and how he can apply these same methods—this same

Illuminating Engineering service—and make Holophane his own successful business in his own local field.

This instruction sheet will interest the Central Station Manager and Salesman too. There are some ideas each can use. Write for a copy of the Electrical Contractor's instruction sheet, "Building a Business on Service."

Holophane Company, Newark, Ohio

Sales Department:

New York Boston Philadelphia Chicago San Francisco London

Holophane Company, Ltd., 62 Front St., W., Toronto, Canada

In writing to advertisers, mention "Selling Electricity"

"The best business we ever had was the flat rate arc business"

(We quote the manager of a central station serving a population of 100,000.)

The same customers, now paying but one-third as much for store lighting, are the star complainers at the high rate per kilowatt.

Turn Back Your Own Records

a couple of years and check up your own kickers—and their present **Kilowatt** value to you. It will explain why one after another the commercial managers of large and small lighting companies are coming to us for a **controlled flat rate** for both residences and stores.

We have the practical Ready Relief for the Kilowatt Hour Complaint. Are you suffering from an overdose?

Excess Indicator Company
105 West 40th St., New York City, N.Y.

Beardslee Designs

"All kinds for all purposes"

This slogan indicates the variety of our line.



Trade  Mark

Will You Have Our
Latest Catalog?

Beardslee Chandelier Mfg. Co.
The House of Quality
216 So. Clinton Street, Chicago



D 5759

Honest Goods at Honest Prices

is maintained when you buy Williamson Fixtures.

We cannot afford to do otherwise, because our reputation is at stake.

Ask anyone that has Williamson Fixtures, makes no difference, whether they might be the expensive or inexpensive kind, they will tell you they're the best that can be had for the money. Why? Because the three most essential points in making up our Fixtures are, the materials, construction and finish, all of which are considered.

As the water finds its level, so does every one of our Fixtures, find its proper price, and its real value.

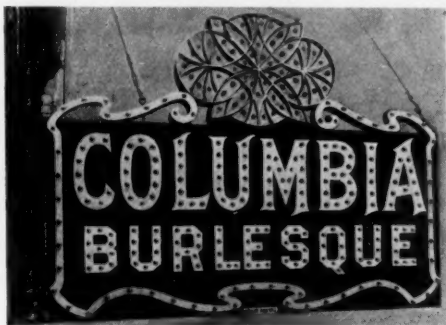
Look up our reputation, that's all.

Our catalog No. 17 now ready for distribution, to the trade only. Send us your name and we will forward to you the most complete fixture and supply catalog on the market, express paid.

R. WILLIAMSON & CO.

Manufacturers of

Electric and Combination Fixtures and Art Glass Domes
Electric and Gas Appliances of Every Description



One of seven different *Haller Signs*

installed upon the new Columbia Theatre Bldg., Chicago. All of these are illuminated with low volt Tungsten lamps (a total of about 1850) from a 220 volt direct

current, Rotary Converter changing to 150 volts alternating current, step down transformers being used for each sign. Write for Catalogue, also Bulletin 27-A (the Toolite Sign), Bulletin 28 (metal transparent glass signs), and Bulletin 23 (Luna Lens sign).

HALLER SIGN WORKS (Inc.)

704 South Clinton Street

CHICAGO

In writing to advertisers, mention "Selling Electricity"

INVESTMENT SECURITIES

We recommend to investors the following:

Commonwealth Edison Company

First Mortgage 5% Gold Bonds. Due June 1st, 1943. Interest payable March 1st, September 1st.
Price to yield nearly 5%.

Commonwealth Edison Company

(Stock)

Paying 7% per annum, 1 3/4% quarterly, February 1st, May 1st, August 1st and November 1st.
Price to yield about 5 1/2%.

North Shore Electric Company

First and Refunding Mortgage 5% Bonds. Due April 1st, 1940. Redeemable at 107 1/2%, April 1st, 1920, or thereafter. Interest payable April 1st, October 1st. Denomination \$500 and \$1,000.
Price to yield about 5%.

North Shore Electric Company

(Stock)

Paying 4% per annum, 1% quarterly, February 1st, May 1st, August 1st and November 1st.
Price to yield better than 4%.

Illinois Valley Gas and Electric Company

(6% Preferred Stock)

1 1/2% payable quarterly, January 1st, April 1st, July 1st, and October 1st.
Price to yield better than 6%.

The above stocks are tax exempt to Illinois Investors.

We make a specialty of above securities and will be glad to furnish further information and prices.

Listed on Chicago Stock Exchange.

Russell, Brewster & Co.

Bankers and Brokers

116 West Adams Street
CHICAGO

New York Office
111 Broadway

Members New York Stock Exchange
Members Chicago Stock Exchange

100% Load Factor

—the ambition of every
station man.

You would like to get as near that as possible and you are now cultivating a day load among the customers you already have:—Good work! *Keep it up!*

At the same time you would not refuse **New Lighting Business** if you could assure yourselves from the start of a handsome revenue per kilo-watt of capacity tied up?

If you find you can get better returns by developing it into full electrical service afterwards, **WHY, GO TO IT!** By all means.

But get it connected up first!

There is plenty of this business in the territory covered by your mains, if you go after it right.



And our instrument will help you get *your* share of it.

BUT DO IT NOW—

"You will never turn your wheels with water that has passed."

Don't forget this.

Henry Thermo-Electric Co.

3 Scott Ave. Newport, Vermont.



THE accompanying illustration is one of the many designs of indirect lighting executed by me and used in Residences, Public Buildings, Churches etc. If properly used this effect is the nearest approach to daylight yet produced in artificial illumination. Have furnished about one hundred residences throughout the country in which this style of lighting was used and has given the best results. For reference I give you a few of the buildings furnished with this system of lighting.

Canyon Hotel, Yellowstone Park, Wyo.
Hannibal National Bank, Hannibal, Mo.
Hannibal City Hall, Hannibal, Mo.
Farmers & Traders Nat'l Bank, Hannibal, Mo.
Stock Yards National Bank, So. Omaha, Nebr.
Rock Island Savings Bank, Rock Island, Ill.
State Savings & Trust Co., Moline, Ill.
Mudlavia Hotel, Kramer, Ind.
First National Bank, Lincoln, Nebr.
and many others too numerous to mention.

Consult me as to your requirements and I shall be glad to submit cuts and prices.

WILLY H. LAU
56-58 E. Lake St., Chicago

"Those Nimble Kimble Motors Are Sure Hot Sellers on Any A. C. Circuit"

The only thing a man has to do is to get 'em started, and it's almost like the "endless chain"—for every one sold sells a lot more.

You see, it's this way: These motors do so many things that no other motors will do, that the man who gets one can never get done talking about it—in his office, at the club, on trains; everywhere.

Take a PRINTER, for instance. There never was another motor that would go fast or slow or reverse, with the touch of a foot lever; and especially, no other motor that saved power in exactly the proportion in which speed was reduced.

And the MOVING PICTURE fellows! Why they are simply delighted. At last—and for the first time—they have a motor to "turn the crank" of their moving picture machines, leaving the hands free, and giving the pictures a more delicate shading than any hand can do it.

Brings in the "Strays"

One thing strikes me about these Kimble Motors is the way they bring in the fellows who have been bullet-proof against every other form of attack—the fellows who have gas engines, oil engines, compressed air, and the hand power and foot power cranks in the bargain.

In fact, any man is now a candidate for current, who runs any kind of machines that carry a fairly uniform load, and especially any kind of machines that call for *variable speeds* or instant reversal.

Fan Motors Too!

Fans that go fast or slow, forward or back, intake or exhaust; and here too cutting *speed* cuts *cost*. But I'll tell you about them in my next letter.

Surprising, by the way, how many fans a man can sell in the dead of winter.

Send to the company in Chicago for their proposition to central station men, dealers, etc.

Their address is

Kimble Electric Company
1115 Washington Boulevard
CHICAGO

The Latest Developments in Methods of Measurement for Securing Light and Power Business



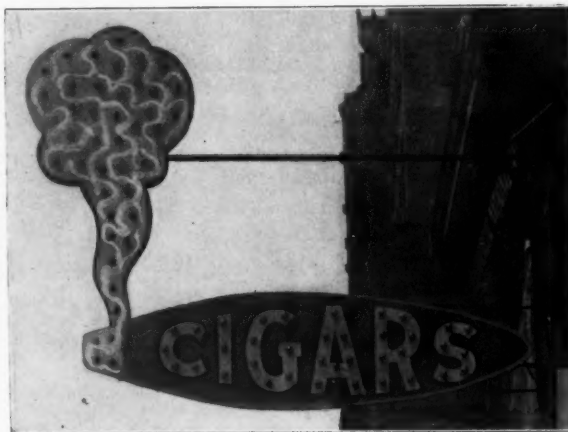
If there is light and power business in your territory which you are not enjoying, the use of the latest methods of measurement will secure it for you.

We can furnish you with instruments which will give you information that will enable you to establish rates that secure contracts.

Our Bulletins 45 and 51 describe their application to all classes of business. We will gladly send them at your request.

MINERALLAC ELECTRIC COMPANY

400 SOUTH HOYNE AVENUE
CHICAGO, ILL.



New Life in An Old Idea

It is hard to Beat a cigar sign for a Cigar Store—but there are lots of them and *we* don't build Signs "like you've seen before."

You ought to see this sign at night and "Watch our smoke." We make signs with life in 'em.

They are all spectacular. They work hard. Buy your next sign from

YOERGER-BUTTERWORTH SIGN CO.
COLUMBUS OHIO

It will be of interest

Won't You Give us the Opportunity to Submit "Reflector Service Information" to YOU?

Your desire to secure the maximum of efficiency and art on each contract you undertake, has induced us to gather together the necessary essentials for a reflector service, that will meet your every requirement.

The necessary and proper reflector for every condition and contingency is the basis of the "Opalux Service." A part of one building may require one sort of reflector as against an entirely different reflector in another part of the same building—even in one room the use of different reflectors may be necessary to produce maximum efficiency.

The use of the "Opalux Service" which includes the rights on Carrara glass and the selling agency for Gleiteco and Camia reflectors will meet your every condition.

Our engineering department, under the direction of our Consulting Illuminating Engineer, has prepared a query blank which we will be glad to forward to you. Your answering the questions asked thereon will give us the opportunity to intelligently inform you, without cost or obligation, our ideas on how best to secure maximum efficiency and art effects.

We enumerate a few of the large users of the "Opalux Service." A list of installations in your locality will be sent on request.

New York

New York Public Library
Bellevue Hospital
Chelsea Press
Fidelity & Casualty Building
Public Schools
Hall of Records
Metropolitan Museum of Art
Columbian University

Newark

Prudential Building
N. Y. & N. J. Telephone Bld.

Pittsburg

University of Pittsburg
Carnegie Technical Schools
Soldiers and Sailors Memorial

Chicago

U. S. Naval Training School

San Francisco

Y. M. C. A.
Higgins Building

THE OPALUX COMPANY

258 BROADWAY, NEW YORK

*Manufacturers of Reflectors for Every Purpose
Opalux—Carrara—Gleiteco—Camia*

*New England Representatives,
The Pettingill-Andrews Co.,
Boston, Mass.
The Eastern Representatives,
H. C. Roberts Electric Supply Co.,
Philadelphia, Pa.*

*The Western Representatives
The Central Electric Co.,
Chicago, Ill.
The Canadian Representatives,
Canadian General Electric Co.,
Toronto, Canada.*

Send This to Your Residence Customers and Prospects!



Full of Suggestions for the Christmas Shopper

Send a copy to every home in your territory. Every family right now is hungry for suggestions for Christmas—"What shall I give?" is the question we're all asking.

This ELECTRICAL PROGRESS suggests the practical answer—"Give something useful," it says—"an electrical heating device, a vacuum cleaner, a portable"—"The best Christmas present a man can make his wife is to have the home wired." READ IT OVER NOW.

We will furnish you with ELECTRICAL PROGRESS to send to your people. Send it to your customers—they will buy "Electric Gifts" for the family. Send it to prospective customers, to everybody—they will buy for friends whose houses are already connected. (Tear this copy out of the magazine and you'll see how it will look.)

Show ELECTRICAL PROGRESS to your newspapers. The editors are looking for suggestive stories like these. They'll print them—That's more advertising for you.

Send in an order for the Christmas Gift Number today. See that it reaches every home. Get your share of the Christmas Harvest this year.

It costs—for 10,000 and over—2 cents per copy.
5000 to 10,000—2½ cents per copy.
1000 to 5000—3½ cents per copy.
Under 1000—5 cents per copy.

If you sign a Contract you enjoy these quantity prices on any orders within a year. Send for a contract form.

But Order the Christmas Gift Number—NOW.

Published by

THE RAE COMPANY

17 Madison Avenue, New York City

In writing to advertisers, mention "Selling Electricity"

, 1911

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ELECTRICAL PROGRESS

Christmas Gift
Number



THE ANNUAL PUZZLE
"What Shall I Give for Christmas?"

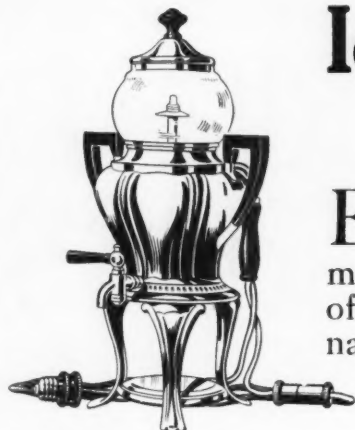


PUBLISHED BY
THE RAE COMPANY
17 MADISON AVE. NEW YORK



NOVEMBER SUPPLEMENT TO "SELLING ELECTRICITY"

Copyright, 1911, by THE RAE COMPANY



Ideal Christmas Gifts

EVERY woman will expect something electrical this Christmas. The first thing nine out of ten will do is to look for the name

Westinghouse

The Westinghouse Electric Percolator is the best coffee maker. No flame, no danger. Very handsome in appearance

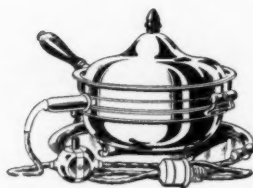
If it is not there—well, the safe thing to do is to see that it is there.

There is a splendid list of Westinghouse devices to select from this year—look at the pictures—Some of the new ones are irresistible, women tell us.

Send for our beautiful little booklet—"Electrical Devices for Christmas"



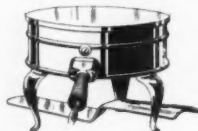
The Westinghouse Electric Luminous Radiator reproduces the glowing warmth of the wood-fire



Electrical operation adds the one necessary feature to the ever-popular chafing dish—perfect safety



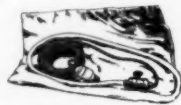
The Westinghouse Electric Milk Warmer lightens mother's work. Baby's food heats in four minutes



The Westinghouse Disc Stove is just the thing for light cooking



The Westinghouse Toaster-Stove is a perfect and practical table stove



The Electric Heating Pad is the modern hot-water bottle



No woman who has used a Westinghouse iron will ever go back to the old kind

Westinghouse Electric & Manufacturing Co.
East Pittsburgh, Pa.

Sales Offices in Forty American Cities

Electrical Progress

A SMALL MAGAZINE PREACHING THE POPULAR
APPLICATION OF ELECTRICITY

Christmas Gift Issue

The Christmas Quandary

"What Can I Give Them That They'll Use?"

The chief enjoyment in our world-wide exchange of Christmas gifts, delight to him who gives and to the recipient, lies in the individuality of the gift, the evidence of a thoughtful desire

universal Christmas quandary. There is no pleasure in spending our useful money for gifts that will be laid away and forgotten. We want to feel that our token will take its place in the life of our friend as a comfort, a convenience and a continual reminder that we wish him well.

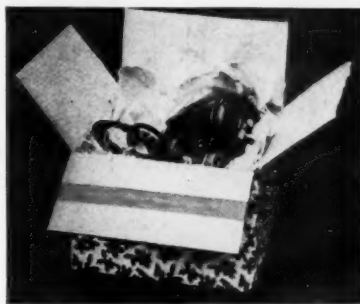
The great opportunity for such useful, practical Christmas gifts lies in the furnishing and equipment of the home, those little touches of luxury which we so often hesitate to purchase for ourselves, but would nevertheless delight



"Electrical Xmas Gifts" come in Holiday Boxes

to give pleasure. The present itself may gratify our fondest wish, it may be "just what we want," but the fact that our friend has sought it out for us is, after all, the real joy of Christmas. To give pleasure at Christmas time necessitates more than the mere spending of money, it means a little thoughtful selection.

How often do we ask this question; how often do we attempt to answer it for some one else?—"What can I give them that they'll use?" That's the



A Sewing Machine Motor packed this way loses none of the "Christmas Spirit" by being utilitarian

to own. That means more than all else, the wide variety of electric devices, "electrical home comforts," as they have been called. A man spends few hours in his home, and all the solid

satisfaction he can crowd into those hours should be his. A woman spends all her working hours there and everything that will help banish the drudgeries of housework, and free more hours for recreation carries a boon. And this is just what these little electrical appliances do.

What is more appropriate as a Christmas gift than an electric toaster, that will make toast year in and year out, hot on the table, when it's wanted?

What could please a man more than an electric shaving mug that gives hot water in an instant, and is always



An Electrolier or "Portable" is always an appropriate gift

ready? A cigar lighter for the den is no less welcome to the smoker.

What gift could be more welcome to the young mother than a baby's bottle warmer, or a heating coil to warm the bath? These are day-by-day comforts that save fatigue and are gratefully appreciated.

The Electric List of Christmas Gifts is printed on pages seven and eight. Read it over and check off the suggestions it will bring you. The impractical Christmas present means but money spent. Such gifts as these carry the evidence of a thoughtful desire to give pleasure, and not only on Christmas day, but throughout the year.

Electric Table Cookery

Why the Toaster, Chafing Dish or Tea Kettle Makes an Ideal Gift

The electrical devices probably most generally appropriate as Christmas gifts are the appliances for table cookery, the toasters, percolators, tea kettles and chafing dishes that are no less useful in the home where there are two servants, than in the little apart-



An Electric Chafing dish is a constant convenience, morning, noon and night

ment where the young bride reigns unassisted. They are labor savers and luxuries combined, and nowhere is the convenience of electric service more appreciated in the modern home than in the dining-room.

We all enjoy toast for breakfast, but if the toast be not hot and crisp, better no toast than the disappointment. To serve toast from the kitchen and have it hot on the table, however, is a different thing. It must come in just about as fast as it is eaten and that is impossible, unless there be a maid available for the duty—except for the home with an electric toaster. Here with a plate of bread and a turn of the switch, the toast is made before your eyes, "just right."

With an electric percolator, and an electric chafing dish, the coffee can be prepared and the eggs boiled, fried or scrambled with perfect ease and absolute independence of the kitchen. For the young housekeeper who is doing her own work, these three appliances simplify the problem most delightfully. They eliminate all that running to the kitchen which destroys

the thorough enjoyment of the meal.

Then there is the little hot water kettle, for making tea, the waffle iron, the cereal cooker and the frying kettle, all practical cooking appliances that can be absolutely depended upon to produce results no less satisfying than the coal fire, and without any of the disadvantages of regular kitchen methods.

The great charm of afternoon tea of the impromptu chafing dish party, and the bedtime bite is the informality of acting on the impulse and avoiding the fuss of preparation always attendant upon a regular meal, be it only a light luncheon. It is only in the use of electric cooking devices that this feature can be enjoyed to the utmost, for even with the alcohol lamp equipment, the lamp must ever be filled and the bottle is always unexpectedly empty. Moreover, it is impossible to maintain an absolutely uniform heat by this method. The electric appliance is always ready and draughts are no impediment. You can have the party on the porch.



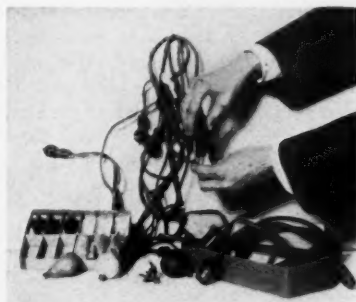
The only way to know the joys of perfect toast is to make it on the breakfast table yourself

The charm of this electric table cookery, appeals to all. There is no better choice in selecting Christmas gifts for grown-ups—married ones—than these electrical devices. They are permanent remembrances; something that is used week in and week out and always with real comfort and pleasure—the qualifications of the ideal gift.

Christmas Decorations—Safe And Sparkling

How Electricity Gives Life to the Tree, the Wreaths and the Streamers.

There is nothing that so nearly typifies the spirit of Christmas as the sparkle of bright lights and glowing color. The Christmas tree is dead when the lights are snuffed and how soon it must die, when candles are



The Christmas Tree Lighting Sets are put away in the box and last from year to year

used, for while they burn the danger of fire is uppermost in every grown mind. Where there are children, Christmas revolves round the Christmas tree, and it is a pity to limit the life of the lights to the few minutes of candle flame.

The little sets of miniature electric lights for Christmas tree decorating are ideal. The lights are in many forms and colors, representing fruits, flowers and little figures of men and animals, all in natural colors and all aglow and a-sparkle. They are entwined through the branches of the tree



Here is a new Christmas touch. The Wreath is of Holly and Poinsettia with a lamp in the centre

and connected by a regular plug to any convenient lamp socket. The tree may stay lighted as long as the children take delight in it and no one need watch for fire.

And so it is right through the Christmas decorations. The Christmas wreaths hanging in the windows are one of the most cheerful touches of the season. How much more beautiful and affecting if they are electric wreaths with tiny red lights shining from the holly! Then there are streamers of green, all alight, to decorate the house and twine round the centre piece on the dinner table, and that centre piece may be a vase or basket of roses or daffodils with real blooms mingled with others glowing with hidden lights.

Cold Weather Comforts

Some Benefits of Electric Service in Winter Time

Many of the people who now look forward to winter time with dread, could fold their fears away if they would but take advantage of the cold weather comforts which electricity offers at practically no expense.

There are men and women both, who go through the winter in one prolonged shiver, just because of the cold beds they get into at night, the cold bath-rooms they bathe in next morning, the troubles with the furnace, and the draughty corners. It is often mental suffering more than physical, but it is no less acute. They need electric heating pads, electric radiators, and electric foot warmers, and if you have such a shiverer on your Christmas List, here are suggestions.

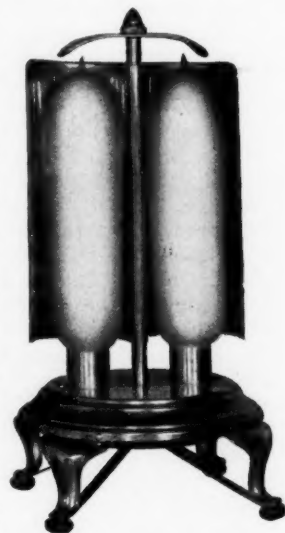
For those who dread getting into a



The Heating Pad is a never-ending pleasure. It warms cold beds and comforts aches and pains

cold bed at night there is the electric heating pad, a soft, flexible pad covered with cloth of eider-down and worth a thousand hot water bottles. Place one of these pads between the sheets, turn on the current, and by the time you are ready for bed you have a nice warm place waiting for you.

Another device that is the source of much comfort in winter is the foot warmer. This appliance is about the size of a hassock and is particularly useful for invalids or aged people. It consumes a small amount of current.



A little Electric Radiator warms cold corners and is ready for any frosty morning

For heating corners of large rooms, or for the bath-room on chilly mornings the electric radiator will be found invaluable. As it is used only for short periods, the expense for current consumption can be very light.

Another touch of luxury without expense is the heating coil, which you immerse in the bath water when the boiler is slow. It heats the tubful in a few minutes. This is invaluable where there are infants.

The electric fan is usually thought of as a hot weather friend, but it is no less valuable in winter time. When the furnace is slow, place the fan before the register or radiator and draw the heat into any room you choose.

These are a few of the cold weather comforts of electricity and each one supplies its warmth in a vital spot. The appliances are all suitable for Christmas gifts.

For Wives, Mothers and Sisters

A Few Gifts That Bring Real and Lasting Happiness.

For the average family, the length of the Christmas List is always appalling, and therefore of necessity, the majority of the gifts must be comparatively inexpensive. But there are a few each year, that we are willing to spend a little money on, if we can find something that will really give lasting pleasure, something that will be used through the years to come with grateful remembrance. That's the kind of Christmas gift we seek for our wives, our mothers and our sisters.

No such gift can more truly express the spirit of Christmas than an electric vacuum cleaner, an electric washing machine, an electric fireless cooker or a complete electric kitchen cabinet. All these devices strike right at the root of the chief domestic burdens. The vacuum cleaner banishes the hours of sweeping and backache. The

In each case it means a practical domestic economy, with less work and more hours of rest and recreation for the housekeeper. What Christmas



The Electric Vacuum Cleaner is a joy to the housekeeper. Time saved and no more aching backs.

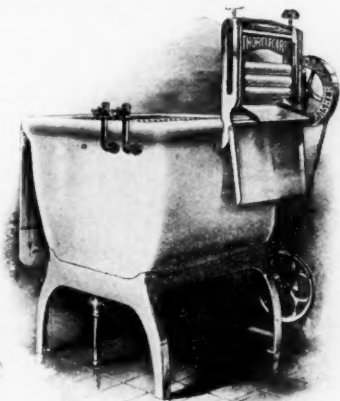
token could carry more real happiness to the home it enters, and more satisfaction to the one who gives?

Have You Thought of This?

In buying for the family and old friends whose wants we know, don't forget that electric lighting fixtures are the most practical of Christmas gifts. As a rule, when we build our homes, the bank account is pretty weak by the time we come to fixtures, and we are forced to practice economies that are most unsatisfying.

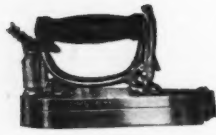
Remember that handsome dome or shower fixtures for the dining room, pendant hall lights and sidewall brackets for any room, with attractive and efficient shades and reflectors, can be purchased at small cost and are most acceptable. It is only the work of an hour or so to remove old fixtures and install the new.

This is worth a little thought, for these new fixtures are often just the thing we hesitate to buy for ourselves. We want them, but because the old ones do the work, it seems like one luxury that we can do without. That makes it the very thing for a Christmas gift!

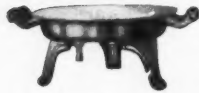


The Electric Washing Machine is a most sensible "Home Gift." It saves money and frees hours for rest and play

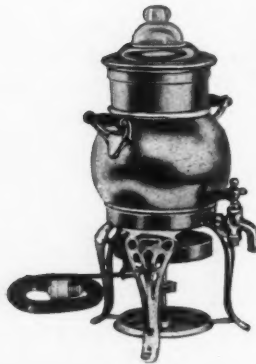
washing machine reduces the labor of the weekly wash from a solid day to about an hour's attention free from fatigue. The fireless cooker gives practical independence of the stove. The kitchen cabinet outfit polishes silver, grinds, sharpens knives, beats eggs, turns the freezer and does other odd jobs, all by electric power.



Laundry Iron



Disc Stove



Percolator



Radiator



Shaving Mug



Corn Popper



Milk Warmer

Electric Gifts for

- | | |
|----------------------|-------------------------|
| Chafing Dish | Electric Fan |
| Coffee Percolator | Sterilizer |
| Hot Water Kettle | Curling Iron Heater |
| Tea Pot | Heating Coil for Bath |
| Toaster | Electric Radiator |
| Griddle and Broiler | Heating Pad |
| Waffle Iron | Sweating Blanket |
| Plate Warmer | Foot Warmer |
| Frying Kettle | Travelers' Outfit |
| Cereal Cooker | Silk Hat Iron |
| Disc Stove | Cigar Lighter |
| Food Warmer | Pocket Flash Light |
| Baby's Bottle Warmer | Toy Railways |
| Corn Popper | Toy Motors |
| Hair Dryer | Toy Moving Picture Sets |
| Massage Vibrator | Electric Automobile |
| Shaving Mirror | Auto. Tire Vulcanizer |
| Shaving Mug | Electrolier |

(Eight)

the Christmas List

Portable Reading Lamp

Piano Lamp

Desk Lamp

Portable Dining Table Lamp

Dome Fixture for Dining-room

Shower Fixture for Dining-room

Sidewall Fixture for any room

Ceiling Fixture for any room

Electric Floral Decorations

Holly Wreaths with Lights

Poinsettia Wreath with Lights

Christmas Tree Lighting Sets

Sewing Machine Motor

Kitchen Motor for polishing silver, grinding and sharpening knives

Ozone Air Purifier

Ozone Water Purifier

Vacuum Cleaner

Hardwood Floor Polisher

Electric Laundry Irons

Washing Machine

Electric Fireless Cooker

Electric Kitchen Range

Kitchen Power Cabinet grinds, beats eggs, freezes cream, etc.

Ventilating Fans



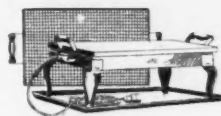
Fan



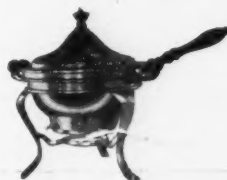
Curling Iron



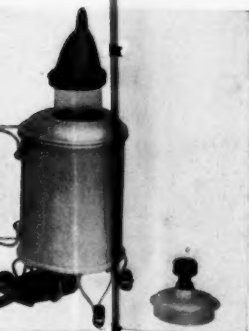
Small Flatiron



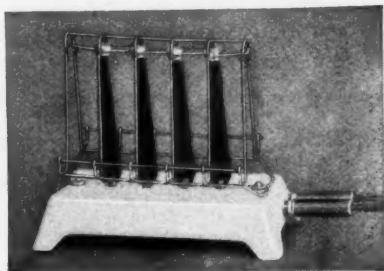
Toaster



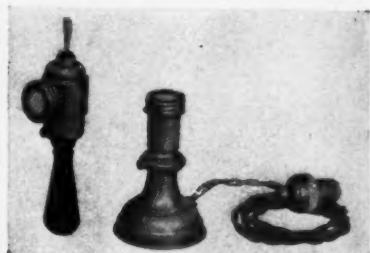
Chafing Dish



Milk Warmer



Toaster



Cigar Lighters

A Christmas Present for the Unwired House

The best Christmas present a man can give his wife and family, if they are living in a house without electric lights, is to have that house wired for complete electric service. Here is a Christmas gift that he can enjoy with them and one which will bring comfort, convenience and pleasure throughout the year and the years to come. It will mean not only electric light, safe, clean, cool and efficient, but opportunity to know the benefits of a vacuum cleaner, an electric fan, a heating pad and any of the other electrical home comforts listed on pages seven and eight.

Perhaps this sounds like a pretty expensive gift, like considerable of an undertaking just at Christmas time, but it need not be.

The wiring of an already-built house is not the difficult and dollar-strangling job that it would appear to be. The modern electrical contractor is wise in the ways of walls and ceilings. He works his wires through seemingly impossible places; he cuts no holes in plaster that are not covered by switch plate or fixture, and he saws out no finished floors. No man need fear for the safety of his



The little Kitchen Motor for polishing silver and other odd jobs is a sensible Christmas present for married folk

home. There is little litter and less noise, and the work is soon done.

And electric service—it means much these days. It brings a greater freedom from the afflictions of the servant problem than ever enjoyed before the electric washing machine, the electric flatiron and the electric suction cleaner came to banish domestic drudgery. It means an opportunity for economy, for these three devices with a little kitchen motor for polishing silver, sharpening knives, beating eggs and grinding, will most assuredly take the place of an extra maid or enable the young matron to do her own work, without the sacrifice of health and leisure. And every additional acquisition brings one more touch of luxury, with an expense for electric current that is literally insignificant.

The best Christmas present a man can give his wife and family, if they are living in a house without electric service, is to have that house wired as soon as the contractor can do the work.

The Electrical Toy

Why It Should be Popular with Father and Son

There has been a marked increase of late years in the variety of "educational" toys. The greatest of these in the estimation of the small boy is the electrical toy, the miniature railway, and the little motor that drives the toy mills and machinery. Life and action are the magnets that attract us all, and those toys that are "real" are a never-failing source of joy to the youngster, and sometimes to the grown-ups as well. Therefore the electrical toy



Holiday Gifts

**Useful and Ornamental
For Table and Home Decorations**

Many other designs both unique and tasty can be seen in my Catalogue—sent upon application.

ERNST GUDEMAN
Importer and Manufacturer

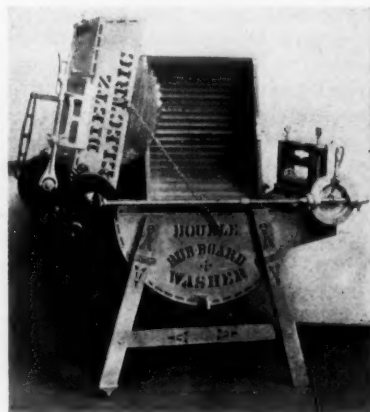
279-283 6th Ave.,

New York

(Ten)

What is YOUR Hardest Household Drudgery?

Go over the week—hour by hour—from Monday morning to Saturday night. Are not the worst hours employed in



The Dietz leaves everything but the Dirt

Contains two curved flexibly connected wash boards oscillating in opposition and holding the clothes in the suds between with just the right pressure to draw the dirt and leave the linen.

Washing and Wringing?

In the average home the first "hired help" goes into the laundry. In the average town or city this is the hardest work to have done **right**.

Half a million washing machines made on the **Double Rub-Board Principal** have been bought in the last fifteen years. The **Dietz** is an electrically operated washer and wringer based on this principal. It has the testimony of 500,000 users. It is **right**.

May we tell you where you can see one in operation?

The John Dietz Mfg. Co.
Cincinnati, Ohio

New York Office
50 Church St.

Catalogue
for the asking

Make a Xmas Present of a *Hotpoint*

A written
two-year
guarantee
with every
iron



The same
cord and
plug can be
used with
all other
devices

The Iron With the Cool Handle and Attached Stand

"El Perco"

\$8.00 Complete
We furnish a
teapot at the
same price



It will begin to
percolate within
thirty seconds
after current is
on

The Electrolyte

Change your kero-
sene lamp to an
electric by using this
device



Complete with six
inches of silk cord
and plug, price \$3.00

Postage prepaid to any
part of the United States
on receipt of \$3.00

C. D. WOOD, 136 Liberty Street, New York

Are You Paying
For Two-Thirds
More Light Than
You Actually
Receive?



Perhaps you are, and never stopped to figure it out before. Maybe you are not using any more lamps than necessary, but what about the cost of operation? Perhaps you would use even more lights and burn them longer if it were not for the expense.

Fort Wayne Sign Lighting Transformers

offer the solution of merchants' electric advertising cost problems.

This device enables you to effectively operate electric signs and exterior and interior ornamental lighting effects at one-third your present cost. It steps the 110 or 220 volt current down so that you can use little 4 watt Tungstens in place of the expensive high voltage carbon lamps.

These little tungsten bulbs give a white brilliant light which is really more effective than that given by carbon lamps using two-thirds more current.

Send today for a copy of our Leaflet 4512 which illustrates and describes this device, and let us figure how much you can save each month by installing one.

FORT WAYNE ELECTRIC WORKS

Of General Electric Company
"WOOD" SYSTEMS

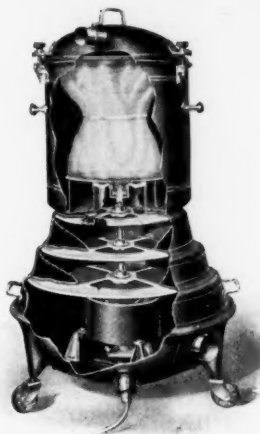
1636 BROADWAY FORT WAYNE, INDIANA

Branch Offices—All Large Cities

120,000 Cubic Inches
of air, dust and dirt per
minute is the cleaning ca-
pacity of

THE VACUNA

No other electric cleaner as quick, durable,
portable or as satisfactory



Portable—not Porter-a-ble

The **Vacuna** weighs less than 50 lbs., but separates at the middle so that the two halves may be carried up and down stairs apart.

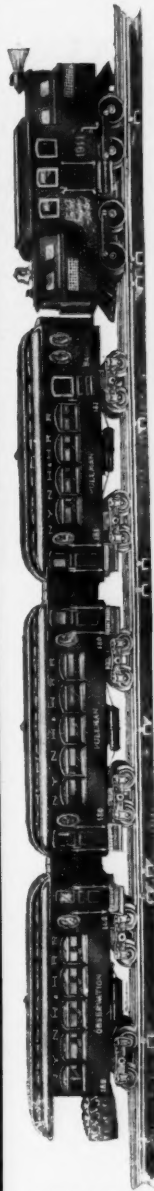
The **Vacuna** has an exceptionally large dust bag which avoids frequent trips to empty during use. The entire upper half goes with the dust bag and prevents leaving a trail of dust, dirt and germs.

The **Vacuna** has a 1-6 h. p. motor direct connected to a high-power turbine fan operating in ball bearings. The motor is not geared, belted or chained to complicated mechanism and every cent's worth of current pulls dirt.

Get our **Vacuna Xmas Plan** and keep the Merry Christmas faces about the house the year around.

CLEANLINESS—GOOD HEALTH

Vacuna Sales Co.
30 Church St., New York



Operate on your
house lighting
circuit. Direct
or Alternating
Current. Also on
Dry or Storage
Batteries.

LIONEL
CONSTRUCTION



Means that every part of every Electric Toy or Motor is made in the best possible manner. The unseen parts are just as carefully made as the visible ones. Electric Toys must be well made or trouble is sure to follow. There is never trouble with Lionel Toys, because they are made to work and to last.

ELECTRIC TRAINS, TROLLEYS AND MOTORS

Constructed on scientific lines, they stand the test of time.

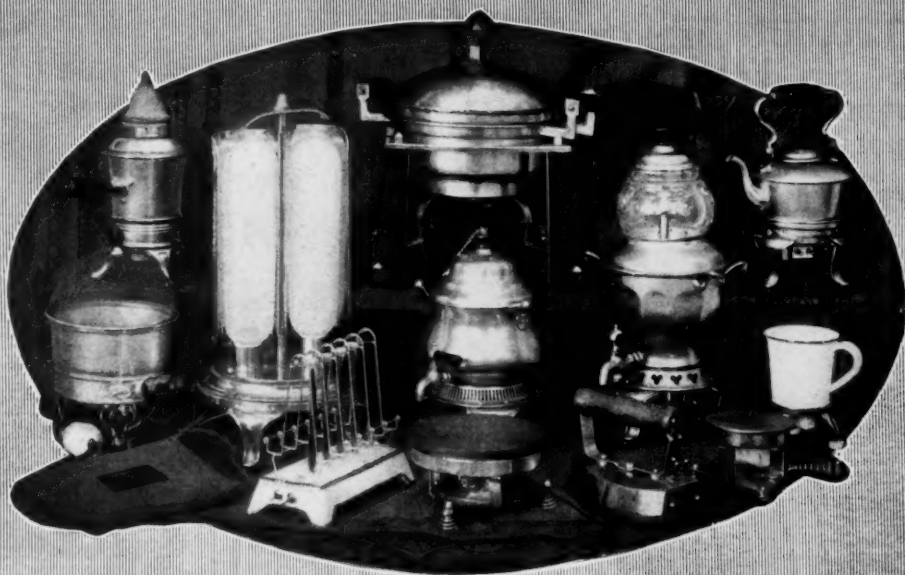
THE LIONEL MANUFACTURING COMPANY

Electric Toys of Quality

The Toy Corner

381-383 BROADWAY

NEW YORK



Give Electric Xmas Gifts This Year

So complete is the G-E line of **electric** Christmas gifts that in it you will be sure to find something for every member of the family.

Electric gifts are useful gifts—each does some one thing better than it can be done any other way, whether it is to toast bread, percolate coffee, or run a sewing machine.

Only G-E heating devices contain the indestructible "Calorite" heating unit which transforms electricity into heat as effectively as the metal filament of the Edison Mazda Lamp changes electricity into light.

Electric Lighted Xmas Trees

Candle lighted trees are dangerous. Avoid all danger by lighting **your** tree with tiny one-candle-power electric lamps representing in colors, fruits, flowers, miniature Santa Clauses, etc.

Electric Christmas Gifts

Chafing Dish	Domestic Range
Coffee Percolator	Oven
Tea Kettle	Flatiron
Samovar	Cigar Lighter
Toaster	Shaving Cup
Corn Popper	Foot Warmer
Hot Water Cup	Luminous Radiator
Cereal Cooker	Heating Pad
Disk Stove	Sewing Machine Motor
Twin Disk Hotplate	

For sale by lighting companies, electrical contractors and supply dealers everywhere. Illustrated price lists sent on request.

General Electric Company
Schenectady, N. Y.

3266



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Just because December is the month of Christmas is no reason why the central station salesman should feel that he can't work

Of course, you can't bother the merchants, and you can't talk to the residence list except about Christmas Gifts, but what's the matter with working on equipment for shops and factories?

The December issue of ELECTRICAL PROGRESS is a Manufacturers' Equipment Number, just the stuff to interest and **convince** the man with the machine shop, print shop, or any other plant where individual electric drive and other electric equipment will save him good money. The photographs are good and the articles say what you want them to.

This is a live sensible issue for this month and ELECTRICAL PROGRESS will give your men the basis of a strong campaign. It's timely and it's strong in sales power.

This next ELECTRICAL PROGRESS will sell Manufacturers' Equipment for you. You need it! Send a copy to the right man in every shop and factory in your city.

They'll be ready by December First. How many do you want?

Published by
THE RAE COMPANY
17 Madison Avenue, New York City, N. Y.

"SLOGAN" SIGNS

One of the most effective means of both booming a city and boosting the business of the lighting company which serves that city, is the erection of a "Slogan" Sign.

The scheme, as generally followed, is this: The lighting company agrees to give a large spectacular sign to the city and the city agrees to buy current to light the same for a term of years. The sign is erected where it may be read from railway trains, and the slogan is calculated to interest the traveling public in the city's potential possibilities and to induce business to locate there. The lighting company makes no money on the proposition, but the gift engenders enthusiasm and creates favorable public opinion. It is also a strong argument in favor of Electric Advertising, and is the opening wedge of a successful sign campaign.

Valentine has made more successful slogan signs than any other sign maker. Easton, Pa., Montgomery, Ala., Bristol, Tenn., Scranton, Pa., Phillipsburg, N. J.—these are just a few that are successful because they represent Valentine brains-plus-art design and Valentine better-than-necessary construction.

There's an opportunity in your city to "whoop things up" by erecting a slogan sign.

Valentine Electric Sign Co.

Atlantic City, New Jersey